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THE AVICULTURAL : MAGAZINE :

BEING THE JOURNAL OF THE
AVICULTURAL SOCIETY FOR
THE STUDY OF FOREIGN AND
BRITISH BIRDS IN FREEDOM
AND CAPTIVITY.

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HUBERT D. ASTLEY, M.A., F.Z.S., M.B.O.U.

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 GIBBINS, WILLIAM B. ; Ettington, near Stratford-on-Avon. (June 1895)*
 GILES, HENRY M., M.Aust.O.U. (Orig. Mem.) ; Zoological Gardens, Perth, Western Australia. (June, 1903)
 GODDARD, H. E. ; Rothesay, Thicket Road, Sutton, Surrey. (Feb., 1899)
 GODMAN, F. DUCANE, D.C.L., F.R.S., F.Z.S., President of the British Ornithologists' Union ; 45, Pont Street, S.W. (Oct., 1904). (*Honorary Member*)
 GOODALL, A. A. ; 64, Park Road, West Dulwich, S.E. (Nov. 1909)
 130 GOODALL, ALEXANDER ; 5, Maria Street, Kirkcaldy. (March, 1916)
 GOODCHILD, HERBERT, M.B.O.U. ; 17, Priory Gardens, Shepherd's Hill, Highgate, N. (Oct., 1912)
 GOSSE, Dr. PHILIP, M.R.C.S. ; Curtlemead, Beaulieu, Hants. (April, 1911)
 GRABHAM, Dr. OXLEY ; The Museum, York. (June, 1914)
 GRAY, HENRY, M.R.C.V.S. ; 23, Upper Phillimore Place, W. (June, 1906)
 GREENING, LINNEUS ; Fairlight, Grappenhall, near Warrington. (Jan. 1911)
 GREGORY, Mrs. ; Melville, Parkstone, Dorset. (Dec., 1901)
 GREY, Rt. Hon. Viscount, K.G. ; 33, Eccleston Square, S.W. (1913)
 GRIFFITHS, M. E. ; Caizley House, Temple Road, Stowmarket. (May, 1902)
 GRÖNVOLD, HENRIK, British Museum (Nat. Hist.) ; Cromwell Road, S.W. (Nov., 1902)
 140 GROSSMITH, J. L. ; The Grange, Bickley, Kent. (Nov., 1912)
 GUILFORD, Miss H. ; 23, Lenton Avenue, The Park, Nottingham. (March, 1903)
 GULBENKIAN, C. S. ; 27, Quai D'Orsay, Paris. (Dec., 1908)
 GUNN, W. CECIL ; The Red House, Bickley, Kent. (Jan., 1902)
 GURNEY, JOHN HENRY, F.Z.S., M.B.O.U. ; Keswick Hall, Norwich, and Athenæum Club, Pall Mall, S.W. (Dec., 1904)
- HAAGNER, A. K., F.Z.S., M.B.O.U., Director, Transvaal Zoological Gardens ; Box 754, Pretoria, South Africa. (Nov., 1905)

- HAGGIE, G. E. ; Brumcombe, Foxcombe Hill, Oxford. (June, 1914)
- HARCOURT, Rt. Hon. LEWIS, P.C. ; 14, Berkeley Square, W. (1913)
- HARDING, W. A., M.A., F.Z.S. ; Histon Manor, Cambridge. (Dec., 1903)
- HARDY, LAWRENCE, M.P. ; Sandling Park, Hythe, Kent. (Nov., 1906)
- 150 HAREWOOD, The Countess of; Harewood House, Leeds. (March, 1903)
- HARLEY, Mrs. F. ; Brampton Bryan, Herefordshire. (1908)
- HARPER, EDWARD WILLIAM, F.Z.S., M.B.O.U. ; Post Box 86, Calcutta, India. (Feb., 1901)
- HARTLEY, Mrs. ; "Lynchfield," Bishops Lydeard, Somerset. (April, 1897)
- HARVEY, The Hon. Lady ; Langley Park, Slough. (Oct., 1906)
- HAWKE, The Hon. MARY C. ; Wighill Park, Tadcaster. (Nov., 1900)
- HAWKINS, L. W. ; 206, Clive Road, West Dulwich, S.E. (Jan., 1899)
- HAYES, Miss PHYLLIS ; Harcourt, Wem, Salop. (1915)
- HEBB, THOMAS ; "Brooklea," The Downs, Luton, Beds. (April, 1914)
- HEMSWORTH, The Rev. B., M.A., J.P. ; Monk Fryston Hall, South Milford, Yorks. (June, 1901)
- 160 HERBERT, EDWARD G. ; c/o T. Cook & Son, Ludgate Circus, E.C.
- HETLEY, Mrs. HENRY, Beaufort House, 114, Church Road, Norwood, S.E. (July, 1910)
- HUEMANN, G. A. ; Strand Arcade, George Street, Sydney, New South Wales. (Sept., 1913)
- HEWITT, HARALD, F.Z.S., East Sooke, Vancouver Island, B.C. (Jan., 1905)
- HEYWOOD, RICHARD ; Narborough, Norfolk. (Oct., 1911)
- HILL, ARTHUR W. ; Assist. Director, Royal Gardens, Kew, Surrey. (Oct., 1915)
- HILL, Mrs. E. STAVELEY ; Oxley Manor, Wolverhampton. (Oct., 1905)
- HINDLE, R. FRANKLIN ; 34, Brunswick Road, Liverpool. (Sept., 1898)
- HODGSON, The Hon. Mrs. ; Clopton, Stratford-on-Avon. (March, 1903)
- HOLDEN, RALPH A., F.Z.S. ; 5, John Street, Bedford Row, London, W.C. (May, 1906)
- 170 HOPKINSON, Dr. EMILIUS, D.S.O., M.A., M.B.Oxon. ; Gambia, West Africa ; 45, Sussex Square, Brighton. (Oct., 1906)
- HOPSON, FRED C. ; Northbrook Street, Newbury. (March, 1897)
- HORSBROUGH, Mrs. BOYD R. ; Tandridge Priory, Oxted, Surrey.
- HOUSDEN, JAMES B. ; Brooklyn, Cator Road, Sydenham, S.E. (Orig. Mem.)
- HOWARD, ROBERT JAMES, M.B.O.U. ; Shear Bank, Blackburn. (April, 1903)
- HOWARD-VYSE, H. ; Stoke Place, Slough. (Nov., 1906)
- HOWMAN, Miss ; 6, Essex Grove, Upper Norwood, S.E. (Mar., 1897)
- HUBBARD, GEORGE ; 112, Fenchurch Street, E.C. (Jan., 1905)
- HUTCHINSON, Miss ALICE ; Alderton, Chippenham, Wilts. (August, 1907)
- INCHIUIN, The Lady ; Dromoland Castle, Newmarket-on-Fergus, County Clare, Ireland. (Nov., 1897)
- 180 INGRAM, Capt. COLLINGWOOD ; The Bungalow, Westgate-on-Sea. (Oct., 1905)
- INGRAM, Sir WILLIAM, Bart. ; The Bungalow, Westgate-on-Sea. (Sept., 1904)

- ISAAC, CHARLES ; Somerton, Bath Road, Slough. (March, 1906)
- JAMRACH, ALBERT E. ; 180, St. George's Street, London, E. (April, 1913)
- JEAKINS, A. E., The Studio, Simla, India. (March, 1915)
- JOHNSON, Major FRANK ; Melrose House, Wilbury Road, Hove, Sussex (1912)
- JOHNSTONE, Mrs. E. J. ; Burrswood, Groomsbridge, Sussex. (May, 1908)
- KNABLE, Miss E. MAUD ; 32, Tavistock Square, W.C. (Aug., 1916)
- KUSER, J. DRYDEN ; Faircourt, Bernardsville, New Jersey, U.S.A. (1912)
- LANCASTER, JOHN ; Dunchurch Lodge, near Rugby. (March, 1904)
- 190 LASCELLES, Hon. GERALD, Illington House, Petworth, Sussex. (Oct., 1916)
- LATHAM, Miss GRACE ; 3, Trevanion Road, West Kensington, W. (April, 1915)
- LAWRENCE, Mr. S. A. ; Miya, Alma Road, E. St. Kilda, Vict. (Sept., 1916)
- LEACH, C. F. ; Vale Lodge, Leatherhead, Surrey. (June, 1914)
- LEE, Mrs. E. D. ; Hartwell House, Aylesbury. (July, 1906)
- LEEKE, Miss DOROTHY ; 9, Hertford Street, Mayfair, W. (May, 1909)
- LEICESTER, the Earl of, G.C.V.O., etc. ; 15, Hill Street, Berkeley Square, W. (May, 1913)
- LEIGH, CECIL ; Lyburn Park, near Lyndhurst, Hants. (Nov., 1906)
- LEMON, FRANK E. ; Hillcrest, Redhill, Surrey.
- LE SOUËF, A. SHERBOURNE ; Zoological Gardens, Sydney, New South Wales. (Aug., 1913)
- 200 LE SOUËF, DUDLEY ; Zoological Gardens, Royal Park, Parkville, Melbourne, Australia. (1912)
- LILFORD, The Lady ; Lilford Hall, Oundle, Northamptonshire. (Jan., 1898)
- LLOYD, Capt. A. M. ; 1/24th Regiment, Chatham Barracks, Chatham. (April, 1912)
- LOCKYER, ALFRED ; St. Monica's Lodge, Elm Park Road, Winchmore Hill, N. (Dec., 1905)
- LOVELACE, The Countess of ; Wentworth House, Chelsea Embankment, London, S.W. (May, 1906)
- LOVELL-KEAYS, Dr. L. ; East Hoathley, Sussex. (Aug., 1913)
- LOVELL-KEAYS, Mrs. ; East Hoathley, Sussex. (July, 1916)
- LOVETT, C. ; 48, Thorncliffe Road, Summertown, Oxford. (Dec., 1912)
- LOW, GEORGE E. ; 14, Royal Terrace East, Kingstown, Ireland. (Mar., 1913)
- LUCAS, Dr. N. S. ; University College Hospital, Gower Street, W.C. (Jan., 1913)
- 210 MANCHESTER PUBLIC LIBRARIES ; Reference Library, Piccadilly, Manchester. (July, 1913)
- MCGEAGH, Dr. R. T. ; Mona Lodge, Lezayre, nr. Ramsey, Isle of Man. (Aug., 1908)
- MCGEE, The Rev. Father ; St. Laurences, Forbes, N.S.W. (July, 1908)
- MALONE, Mrs. M. L'ESTRANGE ; West Lodge, Malton, Yorks. (Jan., 1902)

- MANNERS-SMITH, Lieut.-Col. ; The Residency, Nepal, India. (1911)
- MAPPIN, STANLEY ; 12, Albert Hall Mansions, Kensington Gate, S.W. (April, 1911)
- MARLOW, R. ; 115, Manchester Road, Deutou, Lancs. (Jan., 1915)
- MARSHALL, ARCHIBALD McLEAN ; Chitcombe, Brede, Sussex. (Jan., 1906)
- MARSHALL, F. ; 16, Vale Avenue, Chelsea, S.W. ()
- MARTIN, H. C. ; 147, Victoria Road, Old Charlton, Kent ; and Saladero, Liebig, Fray Bentos, Uruguay. (Jan., 1897)
- 220 MARTORELLI, Professore GIANCINTO, M.B.O.U., etc. ; Collezione Turati, Museo Civico di Storia Naturale, Milau, Italy. (July, 1906.) (*Honorary Member*)
- MASON, D. ; 23, Prince of Wales Terrace, Kensington, W. (June, 1914)
- MAUD, Mrs. CHARLES E. ; Monterey, California. (July, 1913)
- MEADE-WALDO, E. G. B., F.Z.S., M.B.O.U. ; Hever Warren, Hever, Kent, (Jau., 1895)
- MERCER, WILLIAM ; Doylestown, Pennsylvania, U.S.A. (March, 1913)
- MILLS, The Hon. VIOLET ; The Wilderness, Sevenoaks. (Oct., 1907)
- MILLSUM, O. ; 79, Northdown Road, Cliftonville, Margate. (Aug., 1909)
- MITCHELL, HARRY ; Haskells, Lyndhurst, Hants. (Feb., 1904)
- MONBER, Mrs. ; 77, Harley Street, W. (Sept., 1907)
- MONTAGU, Hon. E. S., M.P., M.B.O.U. ; 59, Bridge Street, Cambridge ; and 12, Kensington Palace Gardens, W. (May, 1912)
- 230 MONTGEON, Mdle. de ; Eastington Hall, Upton-on-Severn, Worcs. (Oct., 1913)
- MORGAN, Hon. EVAN F. ; 37, Bryanstou Square, W. (1912)
- MORRISON, Hon. Mrs. McLAREN : Queen Aune's Mansions, St. James's Park, S.W. (Sept , 1911)
- MORSHEAD, Lady ; Forest Lodge, Binfield, Bracknell, Berks. (Dec., 1894)*
- MORTIMER, Mrs. ; Wigmore, Holmwood, Surrey. (Orig. Mem.)*
- MUNDY, Miss SYBIL MILLER ; Shipley Hall, Derby. (Jan., 1909)
- MUNT, HENRY ; 10, Ashburn Place, S. Kensington, S.W. (1912)
- MYLAN, Dr. JAS. GEORGE, B.A., M.B. (Univ. Coll.) ; L.R.C.P. and L.R.C.S. (Ed.), etc. ; 90, Upper Hanover Street, Sheffield. (Dec., 1901)
- NEWALL, Mrs. ; Red Heath, Croxley Green, R.S.O., Herts. (June, 1911)
- NEWMAN, T. H. ; F.Z.S., M.B.O.U. ; Newlands, Harrowdene Road, Wembley, Middlesex. (May, 1900)
- 240 NEWMARSH, C. T., at Gamage's, Ltd. ; Holborn, W.C. (Aug., 1915)
- NICHOLS, WALTER B., M.B.O.U. ; Stour Lodge, Bradfield, Manningtree. (Jau., 1907)
- NICOLL, MICHAEL J., M.B.O.U. ; Zoological Gardens, Ghizeh, Cairo, Egypt. (1906)
- Oakey, W. ; The Angler's Inn, Poole Street, Preston. (March, 1896)*
- OBERHOLSER, HARRY C. ; 1444, Fairmount Street, N.W., Washington, D.C., U.S.A. (Oct., 1903)

- OGILVIE-GRANT, W. R., F.Z.S., M.B.O.U. ; British Museum (Nat. Hist.), Cromwell Road, S.W. (Dec., 1903)
- OGLE, BERTRAM SAVILLE, M.B.O.U. ; Steeple Aston, Oxford. (Dec., 1902)
- ONSLow, The Countess of ; Clandon Park, Guildford, Surrey. (July, 1910)
- O'REILLY, NICHOLAS S. ; 144, Eastern Road, Kemp Town, Brighton. (Dec., 1894)
- OSTREHAN, J. ELLIOTT D. ; Bank House, Thame, Oxon. (April, 1903)
- 250 PAGE, WESLEY T., F.Z.S. ; Langstone, Lingfield, Surrey. (May, 1897)
- PAINTER, K. V. ; 2508 Euclid Avenue, Cleveland, Ohio, U.S.A. (Dec., 1909)
- PAM, ALBERT, F.Z.S. ; Wormley Bury, Broxbourne, Herts. (Jan., 1906)
- PAM, HUGO, C.M.Z.S. ; 65, Bishopsgate, E.C. (Sept., 1911)
- PARKIN, THOMAS, M.A., F.R.G.S., F.Z.S., M.B.O.U. ; Fairseat, High Wickham, Hastings. (Oct., 1903)
- PIER, P. ; c/o Taxation Department, George Street North, Sydney, N.S.W. (July, 1903)
- PENNANT, The Lady EDITH DOUGLAS ; Soham House, Newmarket, Cambs. (Sept., 1908)
- PENROSE, FRANK G., M.D., F.Z.S., M.B.O.U. ; Rathkeale, 51, Surrey Road, Bournemouth. (Dec., 1903)
- PERCIVAL, WALTER G. ; Nanga, Chania Bridge, British East Africa. (Feb., 1915)
- PERREAU, Major G. A. ; 2/4 Gurkha Rifles, Bakloh, Punjab, India. (Dec., 1903)
- 260 PERCY, The Lord WILLIAM ; Alnwick Castle, Alnwick. (May, 1913)
- PERRING, C. S. R. ; 1, Claremont Avenue, New Malden, Surrey.
- PHILLIPS, JOHN C. ; Knobfields, Wenham, Mass., U.S.A. (March, 1910)
- PHILLIPS, Mrs. E. LORT, F.Z.S. ; 79, Cadogan Square, S.W. (April, 1907)
- PICHOT, M. PIERRE A. ; 132, Boulevard Hausmann, Paris. (Sept., 1910)
- PICKFORD, RANDOLF JOHN ; Thorn Lea, Carmel Road, Darlington.
- PIKE, L. G. ; Kingsbarrow, Wareham, Dorset. (1912)
- POCOCK, R. I., F.R.S., F.L.S., F.Z.S., M.B.O.U. ; Zoological Society's Gardens, Regent's Park, N.W. (Feb., 1904)
- PORTAL, MAURICE ; High Sandhoe, Hexham. (April, 1913)
- POTTER, Dr. BERNARD E. ; 58, Park Street, W. (March, 1914)
- 270 POWIS, The Earl of ; 45, Berkeley Square, W. ; and Powis Castle, Welshpool. (April, 1902)
- PRINCETON UNIVERSITY, LIBRARY OF ; Princeton, New Jersey, U.S.A. (Nov., 1907)
- PYCRAFT, W. P., A.L.S., F.Z.S., M.B.O.U., etc. ; British Museum (Nat. Hist.), Cromwell Road, S.W. (Nov., 1904). (*Hon. Member*)
- QUINCEY, RICHARD S. DE Q. ; Inglewood, Chislehurst, Kent. (April, 1913)
- RADCLIFFE, Captain A. DELME, 105th Maratha Light Infantry, Poona, India.
- RATHBORNE, HENRY B. ; Dreenan, Boa Island, Pettigo, Co. Fermanagh. (May, 1901)

- RATTIGAN, G. E.; Fron-Felen, Caersws, Montgomeryshire. (Aug., 1908)
- RICKMAN, PHILIP; Brookmead, Windsor Road, Bray, Berks. (July, 1915)
- REID, Mrs.; Funchal, Madeira. (Feb., 1895).
- RENSHAW, Dr. GRAHAM, M.B., M.R.C.S.; Bridge House, Sale, Manchester. (Jan., 1910)
- 280 RICE, Captain G.; Persey House, Blairgowrie, N.B. (May, 1912)
- RILEY, JOSEPH H.; U.S. National Museum, Washington, D.C., U.S.A. (June, 1906)
- RITCHIE, NORMAN; The Holmes, St. Boswell's, N.B. (Feb., 1903)
- ROBBINS, HENRY; (*Address unknown*). (April, 1908)
- ROBERTS, Mrs., C.M.Z.S.; Beaumaris, Montpelier Street, Hobart, Tasmania. (June, 1903)
- ROGERS, Lieut.-Col. J. M., D.S.O., F.Z.S., M.B.O.U. (late Royal Dragoons); Riverhill, Sevenoaks. (April, 1907)
- ROGERSON, A.; Fleurville, Ashford Road, Cheltenham. (Dec., 1902)
- ROTHSCHILD, Hon. LIONEL DE, M.P.; 46, Park Street, W. (Nov., 1913)
- ROTHWELL, JAMES E.; 153, Sewall Avenue, Brookline, Mass., U.S.A. (Oct., 1910)
- ROYAL ZOOLOGICAL SOCIETY OF IRELAND, Phoenix Park, Dublin. (Oct., 1905)
- 290 ST. QUINTIN, WILLIAM HERBERT, F.Z.S., M.B.O.U.; Scampston Hall, Rillington, York. (Orig. Mem.)
- SCLATER, W. L., M.A., F.Z.S.; 10, Sloane Court, S.W. (Aug., 1904)
- SCOTT, Lieut. B. HAMILTON, R.F.A.; Empire Hospital, Vincent Square, S.W. (1912)
- SÉGUR, M. LE MARQUIS DE; 45, Avenue d'Iéna, Paris. (Sept., 1913)
- SEPPINGS, Captain J. H. W.; The Army Pay Office, Pretoria, S.A. (Sept., 1907)
- SARGEANT, A. ST. GEORGE; Exbury, Padstow, Cornwall. (June, 1915)
- SAMUELSON, Lady; Hatchford Park, Cobham, Surrey. (July, 1916)
- SETH-SMITH, DAVID, F.Z.S., M.B.O.U.; 34, Elsworthy Road, South Hampstead, N.W. (Dec., 1894)
- SETH-SMITH, LESLIE M., B.A., M.B.O.U.; Alleyne, Caterham Valley, Surrey; and Kampala, Uganda. (July, 1912)
- SEBAG-MONTEFIORE, Mrs.; 2, Palace Houses, W. (1913)
- 300 SICH, HERBERT LEONARD; Corney House, Burlington Lane, Chiswick, W. (Feb., 1902)
- SIMPSON, ARCHIBALD; Oakfield House, Stanks, Crossgates, nr. Leeds. (Feb. 1901)
- SMALLEY, F. W., F.Z.S., M.B.O.U.; Challan Hall, Silverdale, near Carnforth, Lancs. (1912)
- SMITH, C. BARNBY; Woodlands, Retford. (Aug., 1906)
- SMITH, Miss DORRIEN; Tresco Abbey, Isles of Scilly, Cornwall. (Aug., 1908)
- SMITH, O. C.; 73, Audley Street, Reading. (March, 1915)
- SOUTHESK, The Countess of; Kinnaird Castle, Brechin, N.B. (Feb., 1901)
- SOUTHPORT CORPORATION, Curator of; Hesketh Park, Southport. (Jan., 1904)
- SPENCE, G. O.; Elmwood, Hartburn, Stockton-on-Tees. (1913)

- SPRANKLING, E.; Brookland Cottage, South Road, Taunton. (Feb., 1914)
- 310 STANSFIELD, Captain JOHN; Dunninald, Montrose, N.B. (Dec., 1896)
- STAPLES-BROWNE, R.; Bampton, Oxfordshire. (Aug., 1898)
- STEVENS, H.; Gopaldara, Mirik, P.O. Darjeeling Himal. Ry., Sonada, India. (Oct., 1911)
- STOCKPORT CORPORATION; Superintendent, Vernon Park, Stockport. (Oct., 1902)
- STURTON-JOHNSON, Miss; Oratava House, Ore, Hastings. (May, 1897)
- SUFFOLK and BERKSHIRE, The Countess of; Charlton Park, Malmesbury. (Feb., 1909)
- SUGGITT, ROBERT; Suggitt's Lane, Cleethorpes, Grimsby. (Dec., 1903)
- SUTCLIFFE, ALBERT; Fairholme, Grimsby. (Feb., 1906)
- SUTTON, Lady; Brinsop Court, Hereford. (Dec., 1901)
- SWATSLAND, WALTER; 47, Queen's Road, Brighton. (Orig. Mem.)*
- 320 TAKA-TSUKASA, Mr.; Nobusuke Taka-Tsukasa, No. 106, Honmura-Cho, Azabu, Tokyo, Japan. (Feb., 1914)
- TANNER, Dr. FRANK L.; Vanvert House, Guernsey. (Jan., 1914)
- TAVISTOCK, The Marquis of; Warblington House, Havant, Hants. (1912)
- TEMPLE, W. R.; Ormonde, Datchet, Bucks. (June, 1907)
- TERRY, Major HORACE A., M.B.O.U. (late Oxfordshire Light Infantry); Compton Grange, Compton, Guildford. (Oct., 1902)
- TESCHEMAKER, W. E., B.A.; Ringmore, Teignmouth, Devon. (May, 1904)
- THOM, ALFRED A.; The Citadel, Hawkstone, Preston-Brockhurst, Salop. (June, 1913)
- THOMAS, F. INIGO; 2, Mulberry Walk, Church Street, Chelsea, S.W. (June, 1914)
- THOMAS, HENRY; 15, Clinning Road, Birkdale, Southport. (Jan., 1895)
- THOMAS, Miss F. G. F.; Weston Hall, Towcester, Northants. (March, 1899)
- 330 THOMASSET, BERNARD C., F.Z.S.; The Manor House, Ashmansworth, near Newbury. (*Hon. Treasurer.*) (July, 1896)
- THOMASSET, H. P.; Mahé, Seychelles, Madagascar. (Nov., 1906)
- THOMPSON, Mrs. F. F.; Canandaigua, N.Y., U.S.A. (July, 1907)
- THORNILEY, PERCY WRIGHT; Shooter's Hill, Wem, Shrewsbury. (Feb., 1902)
- THORPE, CHARLES; Selborne, Springfield Road, Wallington, Surrey. (Dec., 1901)
- TICEHURST, Dr. C. B.; Grove House, Lowestoft. (1912)
- TICEHURST, NORMAN FREDERICK, M.A., M.B., F.R.C.S., F.Z.S.; 35, Pevensey Road, St. Leonards-on-Sea. (Dec., 1906)
- TOWNSEND, STANLEY M.; 3, Swift Street, Fulham. (Sept., 1898)
- TRENOW, EVELYN HENRY, F.Z.S.; Ivy Lodge, Epping, Essex. (Nov., 1910)
- TRESTRAIL, Mrs.; Southdaile, Clevedon. (Sept., 1903)
- 340 TREVOR-BATTYE, AUBYN B. R., M.A., F.L.S.; Ashford Chace, Petersfield, Hants. (July, 1898)
- TUCKWELL, EDMUND H.; Berthorpe, Compton, near Guildford, Surrey. (1912)

TURNER, Mrs. TURNER; Abbey Spring, Beaulieu, Hants. (July, 1910)
 TWEEDIE, Lieut.-Col. W.; c/o Mrs. Tweedie, 8, Glebe Crescent, Stirling.
 (April, 1903)

URWICK, DOUGLAS R.; Prior's Barton, Winchester. (March, 1913)

VALENTINE, ERNEST; 7, Highfield, Workington. (May, 1899)

VAN OORT, Dr. E. D.; Museum of Natural History, Leiden, Holland.

VAN SOMEREN, Dr.; Nairobi, British East Africa. (June, 1915)

WACHSMANN, A. E.; "Maitai," Murray Road, Beecroft, New South Wales,
 Australia. (August, 1914)

WADDELL, Miss PEDDIE; Balquhatstone, Slan Annan, Stirlingshire. (Feb.,
 1903)

350 WAIT, Miss L. M. St. A.; 12, Rosary Gardens, S.W. (Feb., 1909)

WALKER, Miss H. K. O.; Chesham, Bury, Lancs. (Feb., 1895)

WALKER, Miss; Persey House, Blairgowrie, N.B. (Jan., 1903)

WARNER, PERCY; Nashville, Tenn., U.S.A. (March, 1916)

WALLOP, The Hon. FREDERICK. (*No address.*) (Feb., 1902)

WATERFIELD, Mrs. NOEL E.; Blyburgate House, Beccles; and Port Soudan,
 Red Sea. (Sept., 1904)

WATTS, R. J.; "Sunnyside," St. Peter's Road, Huntingdon. (Feb., 1914)

WAUD, Capt. P. REGINALD; Hoe Benham, near Newbury. (May, 1913)

WELLINGTON, Her Grace the Duchess of; Ewhurst Park, Basingstoke. (Oct.,
 1913)

WHITAKER, JOSEPH I. S., F.Z.S., M.B.O.U.; Malfitano, Palermo, Sicily.
 (August, 1903)

360 WHITE, STEPHEN J.; Lloyds, London, E.C. (Oct., 1913)

WHITEHEAD, Mrs. HENRY; Haslem Hey, Bury, Lancs. (March, 1902)

WHITLAW, Miss ROSA M.; Amerden, Taplow. (August, 1914)

WIGLESWORTH, JOSEPH, M.D., M.B.O.U.; Springfield House, Winscombe,
 Somerset. (Oct., 1902)

WILKINSON, JOHN; The Grange, Kirkcudbright, Scotland. (Dec., 1914)

WILLFORD, HENRY; Upland View, Havenstreet, Ryde, Isle of Wight. (Nov.,
 1907)

WILLIAMS, Mrs. C. H.; Emmanuel Parsonage, Exeter. (May, 1902)

WILLIAMS, Mrs. HOWARD; 24, Harley House, Regent's Park, N.W. (April,
 1902)

WILLIAMS, SIDNEY, Jun., F.Z.S.; Oakleigh, 110, Riverway, Palmer's Green, N.
 (Feb., 1905)

WILSON, Dr. MAURICE A.; Walton Lodge, Pannal, Harrogate. (Oct., 1905)

370 WILSON, T. NEEDHAM; Harrow Lodge, Bransgore, Christchurch, Hants.
 (Dec., 1901)

WINCHELSEA and NOTTINGHAM, The Countess of; Harlech, Merioneth. (April,
 1903)

WOLFE, Miss GEORGINA; St. John, 67, Granada Road, East Southsea.
 (August, 1904)

- WOODWARD, KENNETH N. ; 1, Madison Avenue, New York, U.S.A. (March, 1915)
- WOOLRIDGE, Prof. G. H., F.R.C.V.S. ; Ypsilanti, 13, St. Andrew's Road, Golder's Green, N.W. (1912)
- WORKMAN, WM. HUGHES, M.B.O.U. ; Lismore, Windsor Avenue, Belfast. (May, 1903).
- WORMALD, HUGH ; The Heath, Dereham, Norfolk. (Dec. 1904)
- WRIGHT, R. N. ; Church Hill, Robert Road, Handsworth, near Birmingham. (Dec., 1908)
- YEALLAND, JAMES ; Binstead, Isle of Wight. (July, 1913)
- YOUNGER, Miss BARBARA HENDERSON ; 4, Douglas Gardens, Edinburgh. (July, 1909)

Rules of the Avicultural Society.

As amended January, 1908.

1.—The name of the Society shall be THE AVICULTURAL SOCIETY, and its object shall be the study of Foreign and British Birds in freedom and in captivity. Poultry, Pigeons, and Canaries shall be outside the scope of the Society. The year of the Society, with that of each volume of the Society's Magazine, which shall be known as *The Avicultural Magazine*, shall commence with the month of November and end on the 31st of October following.

2.—The Avicultural Society shall consist of Ordinary and Honorary Members, and the latter shall be restricted in number to six, and be elected by the Council.

3.—The Officers of the Society shall be elected, annually if necessary, by members of the Council in manner hereinafter provided, and shall consist of a President, one or more Vice-Presidents, a Business Secretary, a Correspondence Secretary, an Editor, a Treasurer, an Auditor, a Scrutineer, and a Council of fifteen members. The Secretaries, Editor, and Treasurer shall be *ex officio* Members of the Council.

4.—New Members shall be proposed in writing, and the name and address of every person thus proposed, with the name of the Member proposing him, shall be published in the next issue of the Magazine. Unless the candidate shall, within two weeks after the publication of his name in the Magazine, be objected to by at least two Members, he shall be deemed to be duly elected. If five Members shall lodge with the Business Secretary objections to any candidate he shall not be elected, but the signatures to the signed objections must be verified by the Scrutineer. If two or more Members (but less than five) shall object to any candidate, the Secretary shall announce in the next number of the Magazine that such objections have been lodged (but shall not disclose the names of the objectors), and shall request the Members to vote upon the question of the election of such candidate. Members shall record their votes in sealed letters addressed to the Scrutineer, and a candidate shall not be elected unless two-thirds of the votes recorded be in his favour; nor shall a candidate be elected if five or more votes be recorded against his election.

5.—Each Member shall pay an annual subscription of 10s., to be due and payable in advance on the 1st of November in each year. New Members shall pay, in addition, an entrance fee of 10s. 6d.; and, on payment of their entrance fee and

subscription, they shall be entitled to receive all the numbers of the Society's Magazine for the current year.

6.—Members intending to resign their membership at the end of the current year of the Society are expected to give notice to the Business Secretary before the 1st of October, so that their names may not be included in the "List of Members," which shall be published annually in the November number of the Magazine.

7.—The Magazine of the Society shall be issued on or about the first day of every month,* and forwarded, post free, to all the Members who shall have paid their subscriptions for the year; but no Magazine shall be sent or delivered to any Member until the annual subscription shall have reached the hands of the Business Secretary or the Publishers. Members whose subscriptions shall not have been paid as above by the first day in September in any year shall cease to be Members of the Society, and shall not be re-admitted until a fresh entrance fee, as well as the annual subscription, shall have been paid.

8.—The Secretaries, Editor, and Treasurer shall be elected for a term of five years, and, should a vacancy occur, it may be temporarily filled up by the Executive Committee (see Rule 10). At the expiration of the term of five years in every case it shall be competent for the Council to nominate the same officer, or another Member, for a further term of five years, unless a second candidate be proposed by not less than twenty-five Members of at least two years standing, as set forth below.

In the September number of the Magazine preceding the retirement from office of the Secretaries, Editor, or Treasurer, the Council shall publish the names of those gentlemen whom they have nominated to fill the vacancies thus created; and these gentlemen shall be deemed duly elected unless another candidate or candidates be proposed by not less than fifteen Members of at least two years' standing. Such proposal, duly seconded and containing the written consent of the nominee to serve, if elected, in the capacity for which he is proposed, must reach the Business Secretary on or before the 15th of September.

The Council shall also publish yearly in the September number of the Magazine the names of those gentlemen nominated by them for the posts of Auditor and Scrutineer respectively.

9.—The Members of the Council shall retire by rotation, two at the end of each year of the Society (unless a vacancy or vacancies shall occur otherwise) and two other Members of the Society shall be recommended by the Council to take the place of those retiring. The names of the two Members recommended shall be printed in the September number of *The Avicultural Magazine*. Should the

* Owing to the extra pressure of work, the October and November numbers are liable to be late.

Council's selection be objected to by fifteen or more Members, these shall have power to put forward two other candidates, whose names, together with the signatures of no less than fifteen Members proposing them, must reach the Hon. Business Secretary *by the 15th of September*. The names of the four candidates will then be printed on a voting paper and sent to each Member with the October number of the Magazine, and the result of the voting published in the November issue. Should no alternative candidates be put forward, in the manner and by the date above specified, the two candidates recommended by the Council shall be deemed to have been duly elected. In the event of an equality of votes the President shall have a casting vote.

If any Member of the Council does not attend a meeting for two years in succession the Council shall have power to elect another member in his place.

10.—Immediately after the election of the Council that body shall proceed to elect three from its Members (*ex officio* Members not being eligible). These three, together with the Secretaries and Editor, shall form a Committee known as the Executive Committee. Members of the Council shall be asked every year (whether there has been an election of that body or not) if they wish to stand for the Executive, and in any year when the number of candidates exceeds three there shall be an election of the Executive.

The duties of the Executive Committee shall be as follows :

- (i). To sanction all payments to be made on behalf of the Society.
- (ii). In the event of the resignation of any of the officers during the Society's year, to fill temporarily the vacancy until the end of the year. In the case of the office being one which is held for more than one year (*e.g.* Secretaries, Editor, or Treasurer) the appointment shall be confirmed by the Council at its next meeting.
- (iii). To act for the Council in the decision of any other matter that may arise in connection with the business of the Society.

The decision of any matter by the Executive to be settled by a simple majority (five to form a quorum). In the event of a tie on any question, such question shall be forthwith submitted by letter to the Council for their decision.

The Executive shall not have power

- (i). To add to or alter the Rules :
- (ii). To expel any Member ;
- (iii). To re-elect the Secretaries, Editor, or Treasurer for a second term of office.

It shall not be lawful for the Treasurer to pay any account unless such account be duly initialled by the Executive.

It shall be lawful for the Business Secretary or Editor to pledge the Society's credit for a sum not exceeding £15.

Should a Member wish any matter to be brought before the *Council* direct, such matter should be sent to the Business Secretary with a letter stating that it is to be brought before the Council at their next meeting, otherwise communications will in the first place be brought before the Executive.

A decision of a majority of the Council, or a majority of the Executive endorsed by the Council, shall be final and conclusive in all matters.

11.—The Editor shall have an absolute discretion as to what matter shall be published in the Magazine (subject to the control of the Executive Committee). The Business Secretary and Editor shall respectively refer all matters of doubt and difficulty to the Executive Committee.

12.—The Council (but not a Committee of the Council) shall have power to alter and add to the Rules, from time to time, in any manner they may think fit. Five to form a quorum at any meeting of the Council.

13.—The Council shall have power to expel any Member from the Society at any time without assigning any reason.

14.—Neither the Office of Scrutineer nor that of Auditor shall be held for two consecutive years by the same person.

15.—The Scrutineer shall not reveal to any person how any Member shall have voted.

The Society's Medal.

RULES.

The Medal may be awarded at the discretion of the Committee to any Member who shall succeed in breeding, in the United Kingdom, any species of bird which shall not be known to have been previously bred in captivity in Great Britain or Ireland. Any Member wishing to obtain the Medal must send a detailed account for publication in the Magazine within about eight weeks from the date of hatching of the young and furnish such evidence of the facts as the Executive Committee may require. The Medal will be awarded only in cases where the young shall live to be old enough to feed themselves, and to be wholly independent of their parents.

The account of the breeding must be reasonably full so as to afford instruction to our Members, and should describe the plumage of the young and *be of value as a permanent record of the nesting and general habits of the species.* These points will have great weight when the question of awarding the Medal is under consideration.

The parents of the young must be the *bona fide* property of the breeder. An evasion of this rule, in any form whatever, will not only disqualify the breeder from any claim to a Medal in that particular instance, but will seriously prejudice any other claims he or she may subsequently advance for the breeding of the same or any other species.

In every case the decision of the Committee shall be final.

The Medal will be forwarded to each Member as soon after it shall have been awarded as possible.

The Medal is struck in bronze (but the Committee reserve the right to issue it in *silver* in very special cases) and measures $2\frac{1}{2}$ inches in diameter. It bears on the obverse a representation of two birds with a nest containing eggs, and the words "The Avicultural Society—founded 1891." On the reverse is the following inscription: "Awarded to (*name of recipient*) for rearing the young of (*name of species*) a species not previously bred in captivity in the United Kingdom."





H Goodchild del et lith

GUATEMALAN JAY.
Xanthura cyanocapilla.

Ruth imp.

THE AVICULTURAL MAGAZINE,

BEING THE JOURNAL OF
THE AVICULTURAL SOCIETY.

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NOVEMBER, 1916.

JAYS.

By HUBERT D. ASTLEY.

The coloured plate illustrates a lovely member of an exceedingly attractive and handsome genus, but, like all the Jays, not to be trusted with smaller birds in an aviary. If our English Jay arrived for the first time as a rare foreigner from some part of South America, aviculturists would exclaim at its beauty.

The family of the Jays is divided up into various genera. The Blue Jay (North America and Canada) is *Cyanocitta*, as is the Crowned Jay (Mexico) and the Long-crested or Diademed Jay (Mexico and Western United States).

The Pileated, the Blue-bearded, the Black-headed, and the Azure Jays are classed under *Cyanocorax*, whilst we have the subject of our coloured illustration, along with the Peruvian, Beechey's, Yucatan, and Hartlaub's under the generic name of *Xanthura*. The Himalayan Jay, the Lanceolated, etc., are styled *Garrulus*, and so on.

Blue and green are colours which Jays are often garbed in, and nothing is more beautiful than the patch of azure blue, barred with black, on the wing of our native bird.

As a rule, Jays are either exceedingly tame or the reverse, but always exceedingly knowing, with eyes to the main chance. They are not easy to breed in captivity, for they are apt to devour their nestlings, especially if a bountiful supply of animal and insect food is wanting.

Very omnivorous, Jays will eat meat, sparrows, potato, dog

biscuit, fruit, etc., concealing portions of their food in various corners of an aviary, just as in wild life they will store away acorns or nuts until needed for consumption.

A pair of Yucatan Jays, which I have had for some three years or more, refuse to allow any other bird to remain in peace in their aviary, and, much to my distress, murdered the female of a pair of North American Blue Jays, and so mauled the male that I only removed him in time to save his life. Yet the Blue Jays could fly much more swiftly than their Yucatan cousins, and were in splendid condition; but the Yucatan Jays persevered in their bullying, never leaving them alone until they finally overpowered them. The Blue Jays seemed to have no idea of turning upon their attackers or of resisting the onslaughts in any way, in spite of their superior activity and equality in size. And these Yucatan Jays, after having lived in peace with a pair of Golden Pheasants, set upon them too one fine day, dashing and swooping at their heads until they also had to be removed to more tranquil quarters. These Yucatan Jays are extremely devoted to each other; a true pair in magnificent condition, resembling small blue and black Magpies rather than Jays, with their longish tails.

So it will be understood that any aviculturist who wishes to keep Jays of any species must be very careful as to what other birds are put in the same aviary, since in the case of my Yucatan Jays it means *no* other birds except dead sparrows!

Whilst on the subject, we might mention the Long-tailed Blue Jay of Mexico, which Mr. C. William Beebe describes as the grandest of all its race. In "Two Bird-lovers in Mexico" he wrote: "Occasionally a tumultuous flock of Long-tailed Crested Blue Jays, or Magpie Jays, measuring over two feet from head to tail, burst down the canyon; twenty or thirty brilliant blue and white forms, graceful in every motion, with tall, recurved, fan-like crests, and tails so long and plume-like that the feathers undulate behind them as they fly. In cry and action they are thoroughly Jay-like, and in curiosity they equal any member of their family. Quietly hidden under thick brush, I often looked forward to an interesting hour's watching of the wild life, when the sharp eyes of one of these inquisitive birds would spy me out and put an end to all

need of concealment in the vicinity. He would shriek and cry his loudest, alarming the most confiding species, and making every bird within a quarter of a mile uneasy and suspicious. Some of these Jays have white throats, outlined by a band of blue, while in others the whole throat and front of the neck is black. Perfect gradations existed between these two extremes, the difference being due solely to age. The Jays seemed to feed on anything—nuts, seeds, berries, insects, and even small birds, which, apparently paralysed with fear at the shrieks of the blue marauders, were an easy prey.”

With regard to gradations of colours, mentioned by Mr. Beebe, it is curious that the little blue and black Yucatan Jay has the bill bright yellow for the first year of its life, after which it gradually changes to black, and one then has a small Magpie-shaped bird with black bill, head, and underparts, yellow legs, feet, and rim round eyes; the upperparts, with wings and tail, being a uniform and very lovely shade of Kingfisher blue. Mr. Goodfellow brought from Ecuador for Mr. Brook, in the noted collection which arrived in London on September 7th, 1915, a lovely pair of all-blue Jays (? the Azure Jay), which unfortunately died a short time after of lung disease. They would have been most beautiful had they survived to acquire a fresh suit of clean feathers.

Perhaps some other member will write for the magazine upon this interesting and handsome family.

REPORT OF COUNCIL MEETING.

A Council Meeting of the Society was held, by kind permission of the Zoological Society, at Regent's Park on October 11th, 1916. The following members were present :

Mr. Meade-Waldo (in the chair), the Hon. Editor (Mr. H. D. Astley), the Hon. Treasurer (Mr. B. C. Thomasset), the Hon. Secretary (Dr. L. Lovell-Keays), Miss Chawner, Mr. R. I. Pocock, Mr. D. Seth-Smith, Mr. A. Ezra, Miss Alderson.

Letters of regret for non-attendance were received from : Mr. Shore Baily, Mr. St. Quintin, Mr. Willford, Dr. Butler, Mr. Ogilvie-Grant, Mr. Trevor-Battye, Dr. Amsler.

The minutes of the previous meeting were read and approved.

The Hon. Secretary (Dr. L. Lovell-Keays) announced that, having offered his services to the army, he was obliged to retire from the post of Hon. Secretary.

It was proposed by Mr. H. D. Astley and seconded by Mr. Ezra that the Society expresses its gratitude to Dr. L. Lovell-Keays for his valuable services rendered, and its great regret at his resignation.

Miss Alderson accepted the vacant post of Hon. Secretary, and was elected to fill the same.

A motion of regret was passed on the death of the late Colonel Boyd Horsbrugh, for many years a valued member of the Council and the Society.

Dr. L. Lovell-Keays was elected to the Council in the place of Miss Alderson (who retires on becoming Hon. Secretary) and the Hon. Mrs. Algernon Bourke was elected to fill the vacancy caused by the death of Colonel Horsbrugh.

It was decided that the Hon. Secretary be instructed to ascertain the names of members entitled to medals, and that the medals be obtained and sent to them.

The Hon. Treasurer (Mr. B. C. Thomasset) announced that, owing to two generous donations of £40 and £10 respectively to the illustration fund, the finances of the Society are in a more favourable condition, so long as members will pay their annual subscriptions regularly.

The meeting then closed with a vote of thanks to the chairman and the Zoological Society.

THE BROWN-NECKED PARROT.

(*Pæocephalus fuscicollis*.)

By Dr. E. HOPKINSON.

Some years ago I wrote for our Magazine an account of this Parrot, or rather of what I believe to be this species, though its range as given in the British Museum Hand-List does not include

the Gambia. The only two *Paeocephali* given as occurring here are *P. senegalus* and *rubricapillus*. The second is, I believe, *P. fuscicollis* in its red-headed stage.

At that time I see that I had little but had to say of this Parrot as a pet, but this year a pair, which in every way belie what I formerly thought and wrote, having come into my hands, justice bids me make some attempt to remove the stigma I may have cast on these "Bambaras," as we call them in the Gambia, while at the same time I can take this opportunity to add to and modify, from further acquaintance, my first description of their plumage.

This I will attempt first, and the best way to do this will be, I think, to repeat my notes on the plumage of the three birds I had then (1906) alive, and follow these with a description of my present pair.

The whole plumage cycle of these Parrots is a most interesting one, and appears, as far as my experience goes, to show three distinct phases. The first is characterised by brick-red head-markings, which are lost at the first or second moult and followed by the donning for a time of a wholly green and grey plumage without any red of any shade either on the head, legs, or wings. This is succeeded by a third stage, in which the grey and green is set off by scarlet shoulders and "ankles"—a real scarlet, quite different from the first brick-colour. In one sex this brick-red seems to persist on the *forehead only* for a period at any rate of this third stage, but whether the red forehead remains as a permanent sexual distinction I cannot as yet say, but hope that my present pair will settle this point.

My 1906 birds I described (Avic. Mag., third series, vol. i, p. 107) as follows :

"No. 1. A very old bird. . . . Whole head (including forehead), neck, and upper chest brown-grey, each feather with a darker centre; a reddish tinge on chin. Back dusky green; scapulars, flights, and tail dull black with a greenish tinge; rump, upper tail-coverts, breast, abdomen, thighs, and under tail-coverts grass-green, brightest on the rump; under wing-coverts dark green merging into grey. Edge of wing (at angle) and ring round lower end of thigh orange-vermilion. Sexes apparently alike. The beak,

which is large and strong and looks out of all proportion to the size of the bird, is horn-coloured; the cere a paler shade of the same colour. Legs black, iris dark brown. Length 12 in.

"No. 2. A younger but nearly adult bird. . . . Like No. 1, with a grey head, but the green of the rump and under surface was not so bright and there was no sign of vermilion on the angle of the wing or thighs.

"No. 3. A young but fully feathered bird with just a few tufts of down showing on the back and breast; taken from the nest. The whole crown from forehead to nape bright brick-red (or rather a colour between brick-red and pink), with a pale wash of the same colour over the rest of the head, the ground colour of which is brownish-grey as in the adult. This red persists for four or five months after the bird leaves the nest, and during that time gradually changes into the grey of the adult, though some signs of it last till the first moult. In other respects the plumage resembled No. 2."

A. Whole head (including forehead), neck, and throat, brown-grey, each feather with a darker centre. In the centre of the nape, however, is a dark green patch which shades into the back. On the chin and sides of throat the grey is tinged with dusky brick colour. The upper chest is a grey-green with no dark centres to the feathers. General colour above green, duller on the back and brighter on the wings and rump. Flight feathers black, with narrow green edges above and dark grey below. Tail black above, sepia brown below. Edge and internal surface of angle of wing and narrow "anklets" round the lower end of the leg feathers orange-vermilion. Under surface grass-green; the breast, owing to the presence of dark centres to the feathers, duller than the other lower parts.

B. Forehead and anterior third of the crown brick-red (or rather a colour between brick-red and pinkish). The green nape-patch seen in A. not very marked. Rest of head and remainder of plumage much the same as in A., but the green is throughout rather brighter and also tinged on the upper surface with bluish, and with yellow or yellowish on the lower. The red, too, on the wings and legs is more extensive and a bright vermilion or true soldier-scarlet without any orange shade.

In both birds the irides are dark brown, the legs and ceres grey, the beak horn-grey without black tip.

These two birds are, I know, about sixteen months old at the present time, having been taken from the nest in March, 1915, and as they both came from the same nest are almost certainly a true pair, but which is which I do not know. A., the more soberly-clad bird, has more the appearance of maleness and is particularly pally with a Grey Parrot, which is almost certainly a hen; but, on the other hand, the brighter colours of the other go a long way in support of his being a male, unless it turns out that in this species the female outshines her mate, as in the *Eclecti* of the East.

We can now turn to their attractive qualities. Although they can hardly be called pretty, and their heavy build and huge beaks give them a rather clumsy appearance, one has to own that they are very striking-looking birds. This particular pair, too, in every way exemplify the adage, "Handsome is as handsome does," for they are in character and condition in every way the opposite of nearly every other "Bambara" I have known. They are the most confiding company-seeking pair of birds possible, and as gentle as lambs with all white men, though to the black the fiercest foes. To a white man they will come at any time and love to climb all over him, using their deadly-looking beaks to play with and nibble at his ears or fingers in the gentlest possible manner, and so far have never made a mistake and used them with evil intent, even under the influence of sudden excitement. Not one, however, of the "boys" dare touch them, and at their or any other black man's approach they set up a deafening din, and so have quite a real value as watchmen. Occasionally, when they have wandered too far, one of the boys has to be sent after them, but he can only retrieve them by getting them to climb on a cage or long stick, and this only after much perseverance on his part, and after still more resistance and torrents of bad language from the birds.*

* [This is perhaps due, not so much to the skin colouring of the natives, as to their "auras" and vibrations, which are probably antagonistic, or, at any rate, unsympathetic.—ED.]

These birds do not actually belong to me, but are left in my care by their owner, who has gone to East Africa, and who anyhow did not wish to take them home to lose them there from cold or on account of no facilities for their keep. From their earliest days they have been made much of, living loose in their owner's camp when on the march or in his compound when at headquarters, and have never been caged except for the actual day's march or at night. Now they are living on my verandah in Bathurst with wings sufficiently clipped to prevent their straying far, but not enough to prevent them reaching a favourite tree near by or to cause them to fall in a heap at every attempt at flight. Nearly every night I find them at dark in their cage, which they reach *viâ* the verandah steps, though occasionally they have to be hunted for at dusk; but this never takes long, for they always make their whereabouts known by their voices. They have no longings for a night out.

Against their charms, which are many, must, however, be put two great drawbacks—namely, their great destructiveness and their screaming powers; but neither of these out here matters so very much, where one lives a practically outdoor life and where the things on which the huge beaks can work havoc are of small account; but at home I am afraid that consideration for (or the hostility of) one's neighbours, combined with a regard for one's furniture and other belongings, would soon cause their exile to the Zoo, in spite of all their endearing ways.

BREEDING OF THE YELLOW-BREASTED GROSBEAK (*Pheucticus chrysogaster*), NANDAY CONURES, and GUTTURAL FINCH.

I am sending these notes to report the rearing of the Yellow Grosbeak, Nanday Conures, and Guttural Finch. The Grosbeaks came to me in a collection from Ecuador, and when recovered from the long journey were placed in a good-sized aviary with an outside flight. The nest was built in the fork of a branch in the inner house, and was a very rough construction of coarse grass. The birds

would not use dry grass or hay that was offered them, but built the nest entirely of green grass they pulled up in the flight. Two eggs were laid, of a bluish colour mottled on the rounded end. Incubation took about fourteen days, I think, and the young left the nest in about three weeks. For about a fortnight the young were fed entirely on insects, mostly mealworms, of which I luckily have plenty.

By degrees seed seemed to take the place of live food, and now that the young are feeding themselves I do not think anything but seed and green food is taken.

My observations on all these birds that I am reporting on are rather crude, partly owing to the wildness of the birds and partly to want of time to watch properly and take the necessary notes.

The pair of Nanday Conures I have had for about two years. They laid three eggs in a large parrot-breeding box, all of which proved fertile. The three young birds remained a very long time in the nest, and when they left it were so well grown that it was difficult to distinguish them from the old ones. I can see no colour difference at all, but the tail is slightly shorter. There seemed to be two or three days between the hatching of the eggs, and there was an interval of three or four between each bird leaving the nest. I sometimes think the young are larger and better grown than the parent birds. There is nothing of particular interest to report on the rearing of these birds that is not common to the rearing of all parrots.

The pair of Guttural Finches were obtained in Trinidad, and I have had them exactly a year. The nest, which was in a large mass of clematis, was built of grass and shaped like a deep egg-cup. Three eggs were laid; they all hatched, and the three young birds are now on the wing.

I am not quite sure to what extent the young were reared on insects, but certainly a good number were given, as the parents were constantly on the hunt for what they could find, and as the aviary is a large one there was no difficulty about an ample supply.

I can say nothing about coloration, as I cannot get near enough to the birds to see the colour properly, and they are always so mixed up with foliage that a glass is not much good.

E. J. BROOK.

*Hoddam Castle,
Ecclefechan, N.B.*

[It will be recalled that Mr. Brook's collection of birds from Ecuador was landed in England on September 7th, 1915, by Mr. Walter Goodfellow (*cf.* *Avig. Mag.*, October, 1915).

The Grosbeaks, which have successfully bred for the first time in Europe, are very handsome. Rather larger than a Virginian Cardinal, the male has black upper parts, with bold white spots on the wings and tail, and brilliant daffodil-yellow head and under parts. The female is greenish-yellow.

We congratulate Mr. Brook on the success of breeding these rare birds.—ED.]

BREEDING OF THE LITTLE BUSTARD IN 1915.

By W. H. ST. QUINTIN.

I am sorry that the numerous duties, which occupy most of us at the present time, have prevented me from sending in this communication earlier.

It has long been my ambition to breed a Bustard! Since 1886 I have never been without examples of the Great Bustard. I have had many clutches of eggs laid here, but once only was a chick hatched, which, from stress of weather, soon died, as I have recorded in vol. ii of the new series of the Magazine.

From what I have seen, the smaller species, *O. tetrax*, is a much easier subject to breed, given healthy, tame birds, and suitable surroundings.

Though I have managed to keep *O. tarda* in an apparently thoroughly healthy condition for long periods (a male died through an accident after being here nine years, a female also through an accident after eleven years, while I have a female at this moment which was imported from Spain nineteen years ago), still their eggs, with the above single exception, have always been unfertile. Perhaps this is due to the impossibility of supplying sufficient insect food to such large birds at the season when, in the wild state, they would be largely supplementing their vegetable diet by grasshoppers, lizards, etc.



LITTLE BUSTARDS AT SCAMPSTON HALL.

(*Otis tetrax*.)

In the case of the smaller bird, of course, such insects as we supply, or as the birds pick up for themselves in their enclosures in fine weather, "go much further." At any rate I have had, several times, fertile eggs laid by two out of the three females that I have kept.

In 1912 a Little Bustard hatched two eggs, but the chicks were sorely tried by the wet season, and the mother bird was so shy that she did not take advantage of our efforts to provide shelter for her young, and the one that survived longest died, when just beginning to feather, at fifteen days of age.

Last summer my birds were in fine condition, a male and two females, all, I believe, birds of 1907. Until the grass gets up in their enclosure, which they share with a pair of Oyster Catchers and an Australian Thick-knee, the Little Bustards are shut up at night in a dry shed. As with all Bustards, their silky feathers do not turn rain well, and they are safer too on a floor of peat moss in damp weather, even on such light soil as we luckily have here. The two females winter quite well in a shed, but the male appears to feel the damp more, and I generally keep him between October and April in an aviary, which can be warmed by hot-water pipes.

The male Little Bustard assumes the nuptial dress very much later than his bigger relative. In the case of *Otis tarda*, the chestnut pectoral bands and "whiskers" begin to show about the middle of December and he is in full dress by March, when *tetrax* is just beginning to put on his handsome neck and chest ornaments (here in East Yorkshire).

As soon as his courting-dress is complete, the nature of the male Little Bustard alters. Hitherto a peaceable, inoffensive bird, he becomes transformed into an excitable little warrior, seemingly always spoiling for a fight. With short steps, head carried high, and tail depressed, neck feathers extended laterally, and eye blazing, he frequently runs to some selected spot, a bit of rising ground for choice, where he utters his curious double rattling note like miniature castanets, jerking his head back at the same time and finishing the performance by a leap in the air with a whistling "whip" of his wings. The note "carries" several hundred yards.

Whether the Great Bustard is polygamous or not, has been

argued both ways, but there is no doubt that *tetrax* contents himself with one wife. Last spring my bird would have killed the second female, after he had made his choice, if we had not removed her. Whether the male would have taken any share of the parental duties, I cannot say from last summer's experience. I was only too glad to see the female settle down quietly to nest, for I knew that we could supplement her efforts to find insect food for the young, if hatched, and we removed the male to another enclosure.

There have been varied statements as to the number of eggs laid by this bird. Authors have accepted too readily the statements of professional collectors, it seems to me. For example, Dresser, in 'Birds of Europe,' quotes a Mr. Aksakoff as stating that he had found nine eggs in a nest which he had trodden upon, crushing the sitting bird. Another Russian collector is in the same work mentioned as having "stated positively that the bird lays from eight to twelve eggs." Seebohm ('British Birds') records finding a nest with four eggs on the Danubian Steppes, on which the hen bird was sitting. Here I have never had more than three eggs laid in a clutch—and the nests of my birds have consisted of a hollow rubbed out, well protected by a canopy of coarse herbage, and lined with a little withered grass.

My bird in 1915 laid three eggs, the clutch being complete on June 15th. But, as there was a great quantity of rough grass in the enclosure, and we were afraid of disturbing the bird by too frequent investigations, I could not exactly say when she commenced to incubate. But in 1909 a single Little Bustard's egg, placed under a Silky Hen, hatched on the twenty-first day, which determines the length of the incubation period. Two chicks were hatched in the evening of July 2nd, the remaining egg proving unfertile.

Up to the hatching day the weather was all that could be desired; but, unluckily, a very wet spell set in at that very critical time. Fortunately, as a precaution, we had got the bird quite accustomed to a light taken off a garden frame, which, when one day she was off at feed, was placed over the nest, supported so that there was plenty of air, and access to the nest from all sides. This, no doubt, saved the chicks, for we had torrents of rain in the next five days, aggregating 1.74 in. The mother bird kept the

young ones for the first day or two under the shelter of the light, and they were safely brooded there at night.

When the chicks were three days old I watched their parent searching for food in the drenched grass, though the day was so wet and cold that she did not seem to be very successful in finding insects. When she picked a fly off the grass she ran off to where she knew the chicks were hidden up, and they answered to her clucking call and hurried up to take the insect from her bill. Luckily the bird is very tame, and she took mealworms readily, to feed to the young. On the fifth day both young birds picked up chopped egg from the ground freely.

The next day the rain seemed so interminable that, though the risk was considerable, I decided to have the three birds moved to a shed with a dry earthen floor, where they soon settled down, and before night the mother was brooding the chicks quite comfortably.

The young birds thrive apace on a diet of mealworms, gentles, barley and Spratt's meal, chopped egg and lettuce, and by July 22nd, when three weeks old, they were getting much more independent of the mother, whom they almost exactly resembled in plumage, the only difference that I could see being that, in the young, the iris was a good deal paler than in the adult, and that there was a well-defined buff streak down the centre of the crown of the head; but on the feathers faded, this distinction became negligible.

When five weeks old the young appeared certainly more than half grown.

As there is some uncertainty about the plumage of the young male in its first year, whether it resembles the female, or whether, from the first, the markings on the upper parts are finer in the young male, I hoped the young might turn out to be a pair, so that we might settle this point. One of the young was slightly larger than the other, and seemed likely to be a male. However, unfortunately there was soon an opportunity of settling the sex of this bird, for somehow it managed to break one wing close to the shoulder, too high up to amputate, and, gangrene setting in, the poor little thing died on September 2nd. It proved on dissection to be a female.

Now, when thirteen months old, the survivor resembles the

parent exactly, though it is, if anything, slightly the larger of the two. I am inclined to think that this is also a female.

I am sorry to add that this year I have had no further success. The same female went to nest again near her old place, and on June 16th had one egg. I cannot help thinking that she had lost some others; anyhow she began to sit at once, and no more eggs were laid.

All seemed well and she sat steadily till something disturbed her one night, and she left her egg containing a chick almost ready to break the shell.

[*Note made October 20th.*—I was wrong! Recently the bird has moulted, and is certainly a male. The spots on the flanks have gone, and the lower breast, which was tinged with ochre, is now, like the flanks, pure white. The new feathers on the shoulders are marked with fine wavy striations, instead of the coarse lines, and spots of the first year (and as in females *at all ages*). There apparently the change ends; and, as the bird has not assumed the complete plumage of the adult, it seems probable that it will not take on the nuptial dress next spring, and that it will not breed.

But it is evident that, as regards plumage, the young of both sexes of *O. tetrax* are, in their first year, undistinguishable from the adult female; and that the young males partly assume the markings characteristic of the adult, at their first moult, when about fifteen months old.]

THE COLLECTION OF BIRDS OWNED BY MONSIEUR JEAN DELACOUR AT VILLERS- BRETONNEUX.

From an article written by CHEVALIER DEBREUIL, originally published in the 'Bulletin of the National Society of Acclimatization of France,' and translated by the EDITOR and Dr. BUTLER.

It is on his beautiful property of Villers-Bretonneux, near Amiens, that M. Jean Delacour has created a veritable ornithological park.

The property, situated on the hills of Santerre, dominates the valley of the Somme; in spite of its distance from the Channel, a matter of more than sixty kilometres, the influence of the sea makes itself distinctly felt, especially by the dominating west winds. Violent winds are frequent, and also fine and cold rain; the bad weather is more prolonged than in the neighbourhood of Paris, and the temperature is often three or four degrees lower.

The soil is a very fertile clay, with a subsoil of limestone. It was in 1907 that M. Delacour, who was then quite youthful, constructed his first aviaries.

They comprised: (1) Three flights of 32 square metres by 36 (a metre = about 1 yd. 3 in.), traversed by running water, and planted with shrubs and having roosting-houses. These contain exotic passerine birds.

(2) Five flights of 15 square metres, four containing gallinaceous birds, the fifth having fine wire meshing and a very warmed shelter; this is tenanted by Waxbills and other small passerine birds. These five flights contain 150 birds, comprising thirty-one species.

In 1911 the enclosures were added to. Eleven in number, they have an area of 2500 square metres; most of them enclose a sheltering house, and are traversed by running water. All have wire meshing of over 6 ft. in height, and the enclosures are planted with shrubs, etc.

They contain gallinaceous birds, waders, etc.—thirty-eight species in all.

There are other enclosures for Ostriches, Rheas, and Cassowaries. The piece of water, which stretches in front of the château, was enlarged during the winter of 1912–13.

At that time M. Delacour was on military service, but this did not prevent him from actively directing the works which were being carried out.

The piece of water is about 50 metres in diameter, with two islands, and is prolonged by a stream which is 70 metres in length and 4 in breadth.

The pheasantry, which was commenced in the spring of 1913, was finished in the following winter, and encloses 43 flights from

10 to 50 square metres, 24 to the left and 19 to the right, separated by a domed pagoda. The whole length is 80 metres by 16 in breadth. Eleven of the flights communicate with a heated apartment. To the north and east there is a protecting wall, whilst to the south and west there is glass. Sixty-eight species of gallinaceous and other birds are represented.

SHORT-WINGED BIRDS.

- Struthio camelus*, Ostrich, 1 year, 1 ♂, 1 ♀; 27 eggs.
Dromæus novæ hollandiæ, Emu, 3 years, 1 ♂, 1 ♀; 16 eggs.
Rhea americana, S. American Rhea, 5 years, 2 ♂, 3 ♀; 12 eggs.
 — — *alba*, S. American Rhea (white), 1 year, 1 ♂, 1 ♀.
Eudromia elegans, Martineta Tinamou, 1 year, 1 ♂, 1 ♀; 3 eggs.
Nothura maculosa, Spotted Tinamou, 1 year, 2 ♂, 3 ♀; 11 eggs,
 5 young.
Rhynchotus rufescens, Rufous Tinamou, 1 year, 1 ♂, 1 ♀.

CRANES, ETC.

- Grus antigone*, Eastern Sarus Crane, 4 years, 1 ♂, 1 ♀.
 — *cinerea*, European Crane, 2 years, 1 ♂, 1 ♀.
Anthropoides paradisea, Stanley Crane, 2 years, 1 ♂.
 — *virgo*, Numidian Crane, 5 years, 1 ♂, 1 ♀; 4 eggs.
Balearica pavonina, Crowned Crane, 2 years, 1 ♂, 1 ♀.
Pseudotantalus leucocephalus, Indian Tantalus, 2 years, 1 ♂.
Ciconia alba, White Stork, 5 years, 1 ♂.
Ardea cinerea, Heron, 2 years, 2 ♂, 2 ♀.
 — *cocoi*, Cocoi Heron, 1 year, 1 ♂.
Hydranassa ruficollis, Red-necked Heron, 1 year, 1 ♂.
Herodias alba, Great White Heron, 1 year, 1 ♂, 1 ♀.
 — *egretta*, Great American Egret, 1 year, 1 ♂, 1 ♀.
Leucophoyx candidissima, Snowy Egret, 1 year, 2 ♂, 2 ♀.
Botaurus stellaris, Bittern, 1 year, 1 ♂, 1 ♀.
Platalea leucorodia, Spoonbill, 1 year, 1 ♂, 2 ♀.
Ajaja ajaja, Roseate Spoonbill, 1 year, 1 ♂.
Pligalis falcinellus, Glossy Ibis, 3 years, 1 ♂.
Eudocimus ruber, Scarlet Ibis, 1 year, 1 ♂.

- Eudocimus albus*, White Ibis, 1 year, 1 ♂.
Recurvirostra avocetta, Avocet, 2 years, 1 ♂, 2 ♀.
Pavoncella pugnax, Ruff, 4 years, 3 ♂.
Streptilas interpres, Turnstone, 4 years, 1 ♂, 1 ♀.
Porphyrio cærulcus, Purple Gallinule, 2 years, 1 ♂, 1 ♀.
 — *cæsius*, Blue Porphyrion, 1 year, 2 ♂, 1 ♀.
Fulica atra, Coot, 3 years, 2 ♂, 2 ♀.
Gallinula chloropus, Moorhen, 3 years, 1 ♂, 1 ♀.

WATERFOWL.

- Phœnicopterus roscus*, Rosy Flamingo, 4 years, 2 ♂.
Cygnus cygnus, Whooper, 3 years, 1 ♀.
 — *bcwicki*, Bewick's Swan, 3 years, 1 ♂.
 — *olor*, Mute Swan, 3 years, 1 ♀.
 — *melanocoryphus*, Black-necked Swan, 3 years, 1 ♂, 1 ♀.
Chenopsis atrata, Black Swan, 3 years, 1 ♀.
Cereopsis novæ-hollandiæ, Cereopsis Goose, 2 years, 1 ♂, 1 ♀; 5 eggs,
 5 young.
Branta canadensis, Canadian Goose, 2 years, 1 ♂, 1 ♀; 4 eggs.
 — *bernicla*, Collared Bernicle Goose, 2 years, 1 ♂, 1 ♀.
 — *leucopsis*, Bernicle Goose, 4 years, 1 ♂.
Chloephaga magellanica, Upland Goose, 4 years, 1 ♂, 1 ♀; 4 eggs.
 — *rubicaps*, Ruddy-headed Goose, 1 year, 1 ♂, 1 ♀.
Chenonetta jubata, Maned Goose, 2 years, 1 ♂, 2 ♀; 6 eggs.
Cygnopsis cygnoides, Chinese Goose, 2 years, 1 ♂, 3 ♀; 8 eggs, 5 young.
Anser anser, Grey-leg Goose, 2 years, 1 ♂, 1 ♀.
 — *albifrons*, White-fronted Goose, 2 years, 1 ♂, 1 ♀.
 — *fabalis*, Oie des moissons, 2 years, 1 ♂, 1 ♀.
 — *brachyrhynchus*, Pink-footed Goose, 2 years, 1 ♀.
 — *indicus*, Indian Goose, 2 years, 1 ♂, 1 ♀.
Chenalopex ægyptiacus, Egyptian Goose, 5 years, 1 ♂, 2 ♀; 4 eggs.
Casarca casarca, Ruddy Sheldrake, 5 years, 1 ♂.
 — *variegata*, Variegated Sheldrake, 3 years, 1 ♂, 1 ♀; 5 eggs.
Tadorna tadorna, Common Sheldrake, 4 years, 2 ♂, 2 ♀.
Sarcidiornis melanota, Black-backed Goose, 2 years, 1 ♂, 1 ♀.
 — *carunculata*, American Black-backed Goose, 2 years, 1 ♀.

- Dendrocygna viduata*, White-faced Tree-duck, 4 years, 1 ♂, 1 ♀,
 — *autumnalis*, Red-billed Tree-duck, 3 years, 1 ♂, 1 ♀.
 — *fulva*, Fulvous Tree-duck, 3 years, 1 ♂, 1 ♀.
Nettion torquatum, Ringed Teal, 1 year, 1 ♂, 1 ♀.
 — *formosum*, Japanese Teal, 4 years, 5 ♂, 6 ♀.
Querquedula circia, Garganey, 4 years, 3 ♂, 1 ♀.
 — *crecca*, Common Teal, 4 years, 2 ♂, 1 ♀.
Anas boschas, Wild Duck, 3 years, 1 ♂, 4 ♀; 40 eggs, 24 young.
 — *superciliosa*, Australian Wild Duck, 2 years.
Chaulelasmus streperus, Gadwall, 2 years, 1 ♂, 1 ♀; 6 eggs, 2 young.
Eunetta falcata, Falcated Teal, 1 year, 5 ♂, 1 ♀.
Spatula clypeata, Shoveller, 3 years, 2 ♂, 1 ♀.
Dafila acuta, Pintail, 3 years, 4 ♂, 3 ♀.
 — *spinicauda*, Chilian Pintail, 3 years, 2 ♂.
Pacilonetta bahamensis, Bahama Duck, 3 years, 1 ♂, 1 ♀.
Mareca penelope, Wigeon, 3 years, 2 ♂, 3 ♀.
 — *sibilatrix*, Chiloe Wigeon, 3 ♂, 2 ♀; 6 eggs.
Aix sponsa, Summer Duck, 4 years, 7 ♂, 5 ♀; 50 eggs, 11 young.
 — *galericulata*, Mandarin Duck, 7 ♂, 5 ♀.
Metopiana peposaca, Rosy-billed Duck, 3 years, 1 ♂, 1 ♀.
Netta rufina, Red-crested Pochard, 3 years, 1 ♂, 1 ♂; 2 eggs.
Aythya ferina, Pochard, 3 years, 4 ♂, 2 ♀.
Fuligula marila, Scaup, 3 years, 1 ♂.
 — *fuligula*, Tufted Duck, 3 years, 1 ♂, 1 ♀.
Larus argentatus, Herring Gull, 4 years, 2 ♂, 1 ♀.
 — *fuscus*, Lesser Black-backed Gull, 4 years, 1 ♂.
 — *canus*, Common Gull, 4 years, 3 ♂, 3 ♀.
 — *ridibundus*, Black-headed Gull, 4 years, 8 ♂, 7 ♀; 4 eggs.

GALLINACEOUS.

- Pavo muticus*, Specifer Peafowl, 3 years, 2 ♂, 1 ♀.
 — *cristatus*, Common Peafowl, 4 years, 1 ♂, 2 ♀; 10 eggs, 3 young.
 — *nigripennis*, Black-winged Peafowl, 4 years, 3 ♂, 2 ♀; 10 eggs,
 2 young.
 — *albus*, White Peafowl, 4 years, 1 ♂, 1 ♀; 8 eggs.
Polyplectron chinquis, Peacock Pheasant, 4 years, 2 ♂, 2 ♀; 4 eggs,
 1 young.

- Polyplectron germaini**, **Germain's Peacock Pheasant**, 3 years, 3 ♂.
- Lophophorus impeyanus*, Himalayan Moncul, 4 years, 1 ♂, 1 ♀; 8 eggs, 3 young.
- Tragopan satyra*, Horned Tragopan, 3 years, 1 ♂, 1 ♀; 4 eggs, 2 young.
- *temmincki*, Temminck's Tragopan, 3 years, 1 ♂, 2 ♀; 6 eggs.
- *caboti*, Cabot's Horned Tragopan, 3 years, 2 ♂, 1 ♀; 4 eggs.
- Crossoptilon mandchuricum*, Manchurian Crossoptilon, 3 years, 1 ♂, 1 ♀; 12 eggs, 2 young.
- Gennæus nycthemerus*, Silver Pheasant, 3 years, 1 ♂, 1 ♀; 10 eggs, 3 young.
- *lineatus*, Lineated Kaleege, 3 years, 1 ♂, 1 ♀; 8 eggs, 2 young.
- *horsfieldi*, Purple Kaleege, 3 years, 1 ♂, 1 ♀; 10 eggs.
- *muthura*, Black-backed Kaleege, 3 years, 1 ♂, 1 ♀; 7 eggs.
- *albo cristatus*, **White-crested Kaleege**, 1 year, 3 ♂, 1 ♀; 10 eggs, 7 young.
- *swinhœi*, Swinhoe's Pheasant, 3 years, 1 ♂, 1 ♀; 6 eggs.
- Lophura nobilis**, **Bornean Fireback**, 1 year, 1 ♂, 1 ♀.
- *diardi*, Siamese Fireback, 3 years, 1 ♂, 1 ♀; 2 eggs, 1 young.
- *rufa*, Vieillot's Fireback Pheasant, 3 years, 1 ♀.
- Calophasis elliotti*, Elliot's Pheasant, 4 years, 1 ♂, 5 ♀.
- **mikado**, **Mikado Pheasant**, 1 year, 1 ♂.
- *elliotti* × *mikado*, Hybrid, 1 year, 1 ♂; 30 eggs, 12 young.
- Phasianus colchicus*, Common Pheasant, 3 years, 1 ♂.
- *torquatus*, Ring-necked Pheasant, 3 years, 1 ♂.
- *principalis*, Prince of Wales' Pheasant, 3 years, 1 ♂, 1 ♀; 8 eggs, 3 young.
- *mongolicus*, Mongolian Pheasant, 3 years, 1 ♂, 1 ♀; 6 eggs, 3 young.
- *formosanus*, Formosan Pheasant, 3 years, 1 ♂, 1 ♀; 4 eggs, 2 young.
- *versicolor*, Japanese Pheasant, 3 years, 2 ♂, 2 ♀; 10 eggs, 3 young.
- *albus*, White Pheasant, 3 years, 1 ♂, 1 ♀.
- *sæmerringi*, Sæmerring's Pheasant, 3 years, 2 ♂, 1 ♀; 4 eggs, 3 young.
- *wallichii*, Chir Pheasant, 1 year, 1 ♂.

Phasianus reevesi, Bar-tailed Pheasant, 3 years, 1 ♂, 3 ♀; 15 eggs, 9 young.

Thaumalea picta, Golden Pheasant, 4 years, 1 ♂, 2 ♀; 13 eggs, 6 young.

— *amherstiae*, Amherst Pheasant, 4 years, 3 ♂, 2 ♀; 12 eggs, 2 young.

— *picta* × *Ph. colchicus*, Hybrid Golden and Common, 3 years, 1 ♂.

Numida meleagris, Common Guinea-fowl, 5 years, 1 ♀.

— *vulturina*, Vulturine Guinea-fowl, 2 years, 1 ♂, 1 ♀; 6 eggs.

Meleagris gallopavo, North American Turkey, 3 years, 1 ♂, 1 ♀; 8 eggs, 2 young.

Crax alberti, Prince Albert's Curassow, 2 years, 1 ♂, 2 ♀; 3 eggs.

— *carunculata*, Garrell's Curassow, 1 year, 1 ♂.

Penelope cristata, Rufous-vented Guan, 2 years, 1 ♂.

— *pileata*, Red-breasted Guan, 1 year, 1 ♂.

— *marail*, Marail Guan, 1 year, 1 ♂, 1 ♀.

Ortalis araucuan, Pénélope ortalide, 2 years, 2 ♂, 1 ♀.

Lagopus albus, White Grouse, 1 year, 1 ♂.

Ortyx cubanensis, Cuban Colin, 3 years, 1 ♂, 1 ♀.

Lophortyx californica, Californian Quail, 4 years, 1 ♂, 1 ♀; 15 eggs, 8 young.

— *sonnini*, Colin sonnini, 2 years, 1 ♂, 1 ♀.

Callipepla squamata, Scaly Colin, 3 years, 1 ♂, 1 ♀; 23 eggs, 23 young.

Cyrtonyx montezumæ, Montezuma Quail, 1 year, 1 ♂, 1 ♀.

Coturnix coromandelica, Rain-quail, 1 year, 2 ♂, 2 ♀.

Pterocles arenarius, Black-bellied Sand-grouse, 2 years, 2 ♂, 2 ♀.

PIGEONS AND DOVES.

Goura coronata, Common Crowned Pigeon, 3 years, 1 ♂, 1 ♀.

— *victoriae*, Victoria Crowned Pigeon, 1 ♂, 1 ♀.

Calenas nicobarica, Nicobar Pigeon, 1 year, 2 ♂, 2 ♀.

Phlogoenas luzonica, Bleeding-heart Pigeon, 4 years, 2 ♂, 2 ♀; 8 eggs, 2 young.

Geophaps smithi, Smith's Bronze-winged Pigeon, 1 year, 2 ♂, 2 ♀.

Lophophaps leucogastra, Plumed Ground-dove, 1 year, 1 ♂, 2 ♀.

- Phaps chalcoptera*, Bronze-winged Pigeon, 1 year, 2 ♂, 2 ♀.
- Chalcophaps indica*, Indian Green-winged Pigeon, 1 year, 1 ♂, 1 ♀.
- Leptoptila plumbeiceps*, Grey-headed Pigeon, 2 years, 4 ♂, 5 ♀.
- Columba phæonota*, Triangular-spotted Pigeon, 2 years, 1 ♂, 1 ♀ ; 2 eggs.
- Columba leuconota*, White-backed Pigeon, 1 year, 2 ♂, 2 ♀.
- Chlorænas maculosa*, Spotted Pigeon, 1 year, 1 ♀.
- *speciosa*, Specious Pigeon, 1 year, 1 ♂, 1 ♀.
- 4 eggs and 3 young hybrids between these two species.
- Ocyphaps lophotes*, Crested Pigeon, 4 years, 2 ♂, 2 ♀ ; 6 eggs, 2 young.
- Streptopelia tigrina*, Trigrine Turtle-dove, 3 years, 1 ♂, 1 ♀.
- *senegalensis*, Senegal Turtle-dove, 3 years, 1 ♂, 1 ♀.
- *humilis*, Ruddy Turtle-dove, 3 years, 1 ♂, 1 ♀.
- *risoria*, Barbary Turtle-dove, 3 years, 3 ♂, 4 ♀ ; in liberty, numerous young.
- Chalcopelia afra*, Blue-spotted Dove, 4 years, 1 ♂, 1 ♀.*
- Geopelia humeralis*, Bar-shouldered Dove, 3 years, 1 ♂, 1 ♀ ; 2 eggs, 1 young.
- *striata*, Zebra Dove, 3 years, 1 ♂, 1 ♀.
- *placida*, Peaceful Dove, 3 years, 1 ♂, 1 ♀.
- *maugéi*, Maugé's Dove, 3 years, 1 ♂, 1 ♀ ; 4 eggs, 2 young.
- *squamosa*, Scaly Ground-dove, 3 years, 1 ♂, 1 ♀.
- *cuneata*, Diamond Dove, 3 years, 1 ♂, 1 ♀ ; 6 eggs, 2 young.
- Ena capensis*, Cape Dove, 3 years, 2 ♂, 1 ♀.
- Chamæpelia talpacoti*, Talpacoti Ground-dove, 3 years, 1 ♂, 1 ♀.
- *rufipennis*, Ruddy-winged Ground-dove, 3 years, 1 ♂, 1 ♀ ; 4 eggs, 1 young.
- Scardafella inca*, White-throated Scaly Ground-dove, 3 years, 1 ♂, 1 ♀.
- Osmotreron griseicauda*, Grey-tailed Fruit-pigeon, 1 year, 2 ♂, 2 ♀.
- Alectrænas pulcherrima*, Red-crowned Pigeon, 2 years, 2 ♂, 2 ♀.
- Peristera cinerea*, Cinereous Dove, 2 years, 2 ♂, 2 ♀.

(To be continued.)

* As it is called "emerald" above it is probably not *C. afra* but *C. chalcophilos*.

PROHIBITION OF IMPORTATION OF BIRDS.

We fear this regulation will be hard upon dealers in foreign birds, and also that our British wild birds may suffer, since they will probably be in greater demand, and to decimate their ranks would be undesirable.

A fine consignment of African birds has just squeezed through as the door was being shut, and is in charge of Mr. T. J. Hose, 8, Park Place, Clapham Park Road, S.W.

Amongst them are Red-collared, Shaft-tailed, and Pin-tailed Whydahs, various Waxbills, such as Ruddy, Dufresne's, Blue-breasted, etc., all in fine condition.

The Red-collared Whydah is an extremely handsome bird.

CORRESPONDENCE, NOTES, ETC.

A BEETLE (?) FOR BREEDING AS FOOD.

DEAR SIR,—A friend has given me some insects to be bred as a food for insectivorous birds; they are *Carausius morosus*. I am told that these insects are now given to the birds at the Zoological Gardens. Can you tell me if they are good for them, and if they would be suitable for my Paradise birds, Motmot, Toucans, Thrushes, etc. The insects eat ivy leaves.

Yours, etc.,

JEAN DELACOUR (France).

[I wrote to Mr. Seth-Smith, Curator of Birds at the London Zoological Gardens, who replied that he does not know this insect. Can any member enlighten us? Is it a beetle?—ED.]

NESTING OF GLOSSY IBIS.

DEAR SIR,—My pair of Glossy Ibis have again this last season caused me much disappointment in the way of failure of nesting operations.

Each summer for a good many years past they have spent a great deal of time nest-building on a platform a few feet square provided for the purpose. I give them rushes and birch twigs on the platform, and also a stock on the ground. Both birds seem to take the greatest interest and pleasure in moving the nesting material into various positions, and usually make a good large heap at one corner of the platform. The pleasure of the birds in nesting is very evident and their actions are accompanied by much croaking, the cock constantly throwing back his head and spreading his wings with loud cries.

When, however, it comes to laying eggs, these are almost invariably broken, either on the nest or by being thrown down on the ground. Both birds seem so excited when an egg is laid that they push it about with their bills and utter loud cries at intervals, the result always being disaster.

I should be very much obliged if some members of the Avicultural Society could inform me if they have similar troubles, and, if so, if they have discovered any remedy, as I should much like to get a hatch of Ibis next year if possible. They are not easy birds to obtain, and I have only one pair.

Yours faithfully,

C. BARNBY SMITH.

"Woodlands," Retford,

September 16th, 1916.

THE HEARING OF PHEASANTS.

DEAR SIR,—Early in the present year I sent a note to the Magazine as to the chattering of wild Pheasants at night when bombs were dropped a good many miles distant, and in the June number Mr. Smalley wrote an interesting letter as to Pheasants in his neighbourhood not taking any notice of ordinary blasting in adjacent quarries, but being a good deal disturbed by heavy charges of dynamite exploded in such quarries at monthly intervals.

I am merely writing now to record as an interesting experience that the same wild Pheasants which last spring were greatly disturbed by the dropping of bombs between twenty and thirty miles distant did not make any noise or show any sign whatever of disturbance when similar bombs were dropped by night within a mile or so of the wood where they were roosting. I had exceptionally good opportunities of observation.

I do not pretend to offer an explanation, and was greatly surprised.

Yours faithfully,

C. BARNBY SMITH.

"Woodlands," Retford,

September 16th, 1916.

A TRIO OF LUTINOS.

My brother has recently sent me from India no less than three Lutino Indian Parrakeets representing three species, the Ring-neck (*Palaeornis torquatus*), the Alexandrine (*P. nepalensis*), and the Plumhead (*P. cyanocephalus*). All are in fine condition and are not yearlings, since they have the full long tail. In all, the yellow is pure and perfect, of that particularly delicate sulphur shade one gets in these Lutinos. The Plumhead has a pink head, and the Alexandrine shows the usual red patch on the wings, the wing coverts adjacent to it being also edged slightly with red, giving a very pretty effect. The Ring-neck and the Plumhead both have red eyes and flesh-coloured feet; the Alexandrine's eyes are normal in colour, but the feet are light. However, some races of the Alexandrine have pale-coloured feet naturally. Neither the Ring-neck nor the Alexandrine has a ring. Besides being the finest-looking bird, the Alexandrine is by far the rarest of the

three; in fact, is the first Lutino of the species I have heard of, although Alexandrines are quite as common as Plumheads, if not more so. Along with these came a Lutino Plumhead with normal eyes and feet. This is rapidly assuming normal plumage, also being far enough advanced in the change to show that it is a male bird.

A. EZRA.

WHITE WAGTAILS NESTING IN HEREFORDSHIRE.

Mr. TESCHEMAKER writes to the Editor: "Your experience with the pair of White Wagtails is very interesting, such occurrences being very rare in inland districts, though occasionally being recorded on our south and west coasts.

"The pairing of a male White Wagtail with a female Pied is much more frequent.

"Some years since, a 'pair' made a nest under the eave of my stable, but I disturbed them, so they changed their minds and selected a site in a neighbouring garden. The young resembled the Pied."



PEACE AFTER WAR.

From the original picture by Miss Estella Cameron
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BIRDS IN THE LONDON PARKS.

By HUBERT D. ASTLEY.

To aviculturists who live for most of the year in London the wild birds, as well as the domesticated waterfowl, are always a pleasure when there is a time for a walk in St. James's Park, Hyde Park, and Regent's Park, &c., especially if you rise early on a spring or summer morning when most of London is still in bed, or at any rate within doors.

Mr. T. Digby Pigott published a nominal list of London birds in 1892, mainly based upon that published in 1879 by Dr. Edward Hamilton (Zoologist, p. 273), who gave 94 species as having been recorded, which list has no doubt received additions since that date. One of the most conspicuous is the Wood Pigeon, which has been firmly established for some years, and is now semi-domesticated.

In an early morning walk along the Serpentine you will see them bathing in small groups, and their nests are built wherever trees are to be found, the builders being quite undisturbed by the roar of the traffic and the hooting of motor cars. In winter time there are often huge flocks.

Blackbirds and Song-Thrushes are very numerous, but there are many others, such as Robins, Chaffinches, Greenfinches, Woodpeckers, Dabchicks, and the rest. Their plumage for the most part suffers, lacking the gloss and cleanliness of the country birds, but they find, except for cats, that they have protection, being neither snared nor shot. Wheatears and Cuckoos have been seen.

The most picturesque addition to bird life from October to March is the great number of Black-headed Gulls (*Larus ridibundus*), which

the public delights in feeding with bread, so that these graceful birds have become so confiding that they will take food from the hand, settling on the walls of the Thames embankment, or flying backwards and forwards in groups to catch morsels thrown to them.

They mingle with the ducks and geese on the waters, and now look upon London as their definite home for the winter.

Occasionally a Budgerigar or a Ring-necked Parrakeet manages to exist for a time in some London park, and it would be very fascinating if Parrakeets of different species could be established, seed being provided for them in different spots. An attempt was made to do this with Australian Crested Doves, which were turned out in the Zoological Gardens, but although some of them nested, they gradually disappeared, probably down the maws of the London cats for the most part.

Barbary Doves ought to be able to hold their own, provided they were fed regularly, and their cooing in the trees on summer days would greatly add to the attractions of the parks.

There are many Londoners, inhabitants of the great city from necessity rather than choice, whose avicultural proclivities have to find vent in the study and presence of the birds in the parks; men, women, and children who, whilst longing for the song of the nightingale, find solace and interest in other feathered folk which are contented to treat London as a haven and an abode.

Of course, in parts of what is known as London, although we have only been referring to the heart itself, one sees and hears other birds which do not regularly live in the London parks; suburban birds they might be called. There is no doubt that the increase of bird life in the great metropolis during the last thirty years has encouraged the public to think more about the birds, and those men and women who are now grown up cannot but recall with happiness the days when as children they fed the ducks, the portly Wood-pigeons, and the Black-headed gulls. One remembers the old gentleman in Hyde Park who every day, with much inward concentration and apparent oblivion to all humans about him, walked along closely followed by a small cloud of sparrows. At intervals he would halt, holding out an arm, on which a Wood-pigeon settled to eat bread-crumbs from his hand, or else he found amusement in

fixing pellets into the interstices of the tree trunks, from which the sparrows extracted them.

And now the wounded, in peace like lambs, in war like lions (as the ancient adage has it); maimed, halt, and even the blind; show that they too can find solace in aviculture, if by that we mean the care and study of birds in freedom as well as in aviaries and cages. For that indeed our Society was founded.

Therefore we publish, through the courtesy of the artist, Miss Estella Canziani, a reproduction of her very striking picture, which has been supplied to us by the Medici Society* (7, Grafton Street, W.), for which permission we beg to tender our thanks, thinking that in the future, as well as we hope the present, such a reminder of the great war will serve as an interesting record, at the same time encouraging aviculturists to tame birds in their wild or semi-wild life, whether in town or country.

NOTES ON A FEW AMERICAN WARBLERS

By THE LADY WILLIAM CECIL.

[BARONESS AMHERST OF HACKNEY.]

The rich meadow lands, the orchards and gardens, as well as the great woods and forests of North America, both in Canada and the States, are full of sweet-voiced birds, and the little Warblers are responsible for a large part of the concert. Many of these Warblers, as well as tuneful voices have pretty plumage, and all are a fascinating study. I thought, therefore, that these few notes might be of some slight interest to bird-lovers, who, like myself, enjoy watching their little feathered friends in their native surroundings.

The American Warblers are seldom seen in confinement, nor do their names figure in bird-shop catalogues. There are such numbers of them that a full description of all would fill a volume. I have only chosen here just a few among the many that I have watched with care and pleasure, and whose sweet notes have

* "The Wounded Soldier" can be obtained from the Medici Society in the form of Christmas cards.

often charmed an idle hour, and will always remain a delightful memory.

I have in no way attempted to classify the Warblers I mention;* I have merely selected the notes haphazard from my American-bird note-book, taken during the time I was in Canada and the Northern and Southern States at different seasons in the spring, summer and autumn months.

Many of these Warblers are very much alike in colouring, so that anyone wishing to identify a bird has to take note of any peculiarity of marking and colour, also the places which are their favourite haunts. Some love the deep forests, and some the gardens and orchards; some live high in the branches; some near, and even on, the ground; some frequent the chilly North, some the warm South. All these points have to be considered in making the acquaintance of these little American birds.

The first Warbler's name I find in my note-book is that of the *Black-poll Warbler* [*Dendroica striata*], a small bird which is black and white with a streaky, greenish and black back and a velvet black cap. In summer this little bird is often seen in orchards and gardens fluttering up and down the stems and branches of fruit trees seeking for insects. It builds in Canada, and makes a very large nest for its size.

Another dear little bird is the *Blue-winged Warbler* [*Helminthophila pinus*]; in colouring it is olive, shading to blue-grey, with a yellow cap, breast and underparts, with white bars on its slate-blue wings, and white blotches on its tail. This Warbler, too, may be found in orchards, hunting for insects, and heard singing a queer little "see-saw" song. One naturalist (N. Blanchard) says that the leaves which form part of the Blue-Wing's nest are all placed with their stems pointing upwards. I have never been fortunate enough to find their nest, so have not seen this peculiarity.

* American Warblers—Mniotiltidæ—are peculiar to the New World; they have only nine primaries, instead of ten. There are over 130 species, and over 125 are summer visitors to North America (United States and Canada). They may be arranged in five groups—Creeping Warblers, Ground Warblers, Worm-eating Warblers, Fly-catching Warblers and Wood Warblers—but even now the subdivisions are undetermined. The average size of the Warblers is about 5 to 6 inches; a few are smaller, 4 and 4.75, and *Icteria virens* is the largest, 7.5 inches.

The *Blue Yellow-Backed*, or *Parula Warbler* [Compsothypis americana], is also a blue-grey and yellow bird. It has a very indistinct band of dark colour, which is sometimes reddish-brown across its yellow waistcoat; two white patches or bars on the wings, and two or three at the end of the tail help to distinguish it. Parulas are wonderfully graceful little birds; they are oftenest seen fluttering about near the outside twigs and branches of tall trees. They live chiefly on insects. They nest in Canada, where we often saw them, and they winter in Florida, where we also met them. Their song is a sweet "thready" little warble.

The *Redstart*, or *Yellow-tailed Warbler* [Setophaga ruticilla], is a lovely little bird in the breeding season, for then his colouring is rich pinkish orange, with a shiny metallic-black head, a white breast shading to orange, black wings lined with orange, and a black and orange tail. During the rest of the year you may see a dull brownish-black bird which is difficult to recognise as your brilliant springtime acquaintance. The hens are yellow where the cocks are orange, the young are most like the hen. This Redstart has an odd sharp little note which it repeats several times in succession. It feeds on insects, dashing out at them with sudden short flight, spreading its tail like a Fantail Warbler. This bird, it is said, takes two years to reach its perfect plumage.

The *Myrtle Warbler* [Dendroica coronata] has a grey-bluish back, the under parts are mottled and streaked with black, and it has two white bars on its wings, but the surest way of distinguishing it is by looking out for its four yellow patches, one on its head, one on its back and one on either side. It is a very common bird in Florida, but migrates as far as Canada when the nesting-time comes. Myrtle Warblers live chiefly on myrtle and juniper berries and the like, and if food is plentiful and the weather fairly mild some birds may remain north even through the winter.

The *Black-throated Blue Warbler* [Dendroica cœrulescens] is rather more a grey-blue bird than a really blue one, with a light grey head shading to dark above the tail, with black breast, sides, throat and cheeks, while the under parts are pure white; a conspicuous white spot on the wings is a help towards identification. The nest is generally placed in low bushes, and in rather damp places in woods.

The song is so very soft and low, and so difficult to hear, that I am not absolutely sure of having heard it, not having actually seen the bird singing. The hen is quite different from the little cock, she is dusky olive-green and palish dirty yellow, with only a faint tinge of the blue-grey.

There is no fear of overlooking a *Black and White Creeping Warbler* [*Mniotilta varia*]. He is only found in America, and is the "cutest" little fellow imaginable. He is striped and splashed with black and white all over, and may be found clinging to the bark of trees like a tiny Woodpecker while he seeks his insect food. He also flutters up and down the stems and branches like a Black-Poll Warbler. These creeping Warblers have a very small, soft song; you may watch them suddenly pause in the middle of their insect hunt to sing "Twee-ek-ie, tweek-ie tw-e-e-e-e," hardly above a whisper.

The *Oven-bird*, or *Teacher* [*Seiurus aurocapillus*], is a small Wood-Warbler, which gets its first odd name from the curious oven-like nest it builds on the ground, like a wee mole-heap with a doorway at the side. Its second name is from its call-note, which sounds like "Teacher, teacher," many times repeated, and getting louder at each repetition. Oven-birds are very shy little fellows, and become almost paralysed with fear at the approach of a possible enemy, human or animal.

As well as its odd call-note, the Oven-bird has a very lovely song, which occasionally may be heard in the nesting season. I had the good luck to hear it once, and to see the bird as he sang. He hovered in the air, almost like a Lark, but among the tall forest trees instead of over open ground, and he sang his wonderful little song as he hovered, and then dropped suddenly to the ground, and was hidden in the undergrowth. He is a sombre-coloured little bird, greenish-olive above and white underneath, his breast spotted with dark lines and dots. He has a white eye ring; the only bit of brightish colour is his orange-brown cap, edged with black, which justifies his third name of Golden-crowned "Thrush," though he is no Thrush!

The *Summer Yellow Bird* [*Dendroica æstiva*] deserves his charming name. He is really yellow; above slightly tinged with olive, below bright yellow with a few streaks of burnt sienna. He

has a mild little song of four or five little "cheeps" constantly varied in tone.

It is said the Cow-birds often lay their eggs in this Warbler's nest, and that the little owner of the nest builds another storey over the intruding egg, and that nests with as many as three stories have been found built over three different Cow-birds' eggs.

I found a Summer Yellow Bird's nest (near Napanee); it was most beautifully made of fine grass and thistle-down and fern-down. It certainly had a sort of rudimentary double floor, but there were no eggs in it, either its own or Cow-birds', for whatever there were had long been hatched and the birds flown, as it was the end of July.

The *Canadian Warbler*, or *Canadian Flycatcher* [*Sylvania canadensis*], as it is sometimes called, lives in damp woods, where it can find plenty of insects. It catches them on the wing, as well as picking them off plants and trees. Its colouring is grey above with black streaks on its head; its breast is yellow, with a row of black marks across it, set like a Lord Mayor's chain of office. Its song is louder than that of most Warblers, but very sweet and clear.

The *Blackburnian*, *Hemlock Warbler*, or *Torch Bird* [*Dendroica blackburniæ*], is lovely. His head is bright orange and black; his throat and breast are orange, shading into whitish; his back, tail, and wings are black and white, and he is altogether as smart a little fellow as you could wish to see. Fluttering among the dark trees of the Canadian forests I have watched little couples of Torch Birds, the brightly-coloured little cock, and his dull-coloured mate, busy with their family cares and affairs which the little cock bird varies by stopping now and again to sing a little pleasant warble, unremarkable, but full of sweetness. Their winter home is in the South, where they go some time in September.

Another Warbler, rather a rare one too in North America, is the *Prothonotary*, or *Florida Warbler* [*Prothonotaria citrea*]. He is bright yellow, grey and olive, with white marks on his tail which show when he flies. He has rather a long bill for a Warbler. We made his acquaintance at Eau Galée in Florida, but I never heard his song. He does not migrate far North, hardly beyond the swampy forests of the Southern States.

The *Bay-breasted Warbler* [*Dendroica castanea*] has a reddish breast, in fact really "bay"; its crown too is the same colour, its back greenish and black streaky. It has black cheeks and forehead, and white bars on its wings; a white patch on either side of the neck is a good identification mark. This little bird is also called the Autumnal Warbler, I suppose because its breast is so like the colour of a withered leaf. Bay-breasts are generally found in the tall trees of the Canadian forests, but often come, in small flocks, to feed in gardens and hedgerows.

We first met the *Magnolia Warbler* [*Dendroica maculosa*] in Canada, and renewed our acquaintance near New Orleans, at the opposite ends of his migratory journey. His back is black, with olive shading, and underneath he is all bright, clear yellow. His blue-grey cap, with a white line behind and a broad black band all round, and a large white spot on the wings, and white across the middle of the quills of the tail, distinguish him very well. The *Magnolia Warbler's* song is a clear, distinct, quick whistle, which he seems thoroughly to enjoy singing.

The *Western Warbler* [*Dendroica occidentalis*] is much like the Black-throated Green Warbler, and seems to take its place from the "Rockies" to the Pacific. It is olive greyish above, with crown and sides of the head a clear yellow. The Western has no black line running through the eyes like the Black-throated Green Warbler; the breast and chin are black in both birds. The Western Warbler's song is very sweet, though it consists of only two or three notes. It builds high up in the forest trees. Unknown to us a pair had built in a tall pine in a clearing we were making in our garden in British Columbia. The tree was cut down, and the pretty little nest of moss and grass was destroyed. I was thankful to find that the very next day the little couple were very busily employed in building themselves a new abode, where in due time a small family was safely hatched and fledged.

The *Worm-eating Warbler* [*Helminthus vermivorus*] is a difficult bird to see, as it "keeps itself to itself" and has not much song to attract a listener. It is, however, easily distinguished by its striped pale yellowish-cream and black head, and its pale-coloured feet. Its back is olive brown, and underneath it is cream shading to

white. These Warblers live on insects, and I suppose worms, though I have never caught them "worming." They build on the ground, and generally fly low, keeping to the lowest branches and undergrowth in the woods.

Just north of El Paso, on the Rio Grande, we had (by a very fortunate chance) a passing glimpse of a rare bird, the *Painted Flycatcher* [*Septophaga picta*], one of the Fly-catching Warblers. There was no mistaking its exquisitely shiny black head and crimson-red colouring, with conspicuous white feathers in its tail which it showed very distinctly when flying. This is more properly a Mexican bird, but strays as far north as Arizona. The one we met was evidently on its journey northward when we saw it about the second week in April.

The *Polyglot*, or *Yellow-breasted Chat* [*Icteria virens*], is really a Warbler and not a Chat. It is quite the largest of the Warbler family, and is justly celebrated for its wonderful voice, which is not so much one song, as a sort of *pot-pourri* like all sorts of different birds' songs. For this reason it is sometimes called the Yellow Mocking-bird, though the quaint medley is really its own invention. These birds sing by moonlight, *à la* Nightingale. They are also said to be able to ventriloquize. Another of their peculiarities is their curious flight, for they sometimes "tumble" in the air like tumbler pigeons. Their colouring is very simple, just olive-green with a yellow breast, but their best distinguishing marks are their large size and the white line above and below the eyes and on either side of the throat.

The *Prairie Warbler* [*Dendroica discolor*] is another pretty little olive and yellow bird. It may be easily identified by the black markings on its yellow sides, running up towards the throat in two points, and also by the brick-red spots between the shoulders. This little Warbler, unlike most of its fellows, prefers open country to the woods. They may be seen in clearings and prairie land, among the scrub, darting out to catch their fragile insect prey, or sitting on the topmost twig of a bush singing rather a pretty little song. They carefully place their nests in thorny bushes.

The *Maryland Yellow-throat*, or *Black-masked Warbler* [*Geothlypis trichas*] has a greenish-brown back and head and a light yellowish throat and breast, and he wears a very distinct black mask.

This little Warbler builds as near the ground as possible, preferring the very evil-smelling skunk-cabbage in which to place his nest, certainly a safe place! He has rather a nice little song, of three or four notes, which it is said calls "Follow me, follow mee-e." Late in the summer I watched one rising, almost lark-like, as it sang. It has also a sharp call, or warning note.

The *Black-throated Grey Warbler* [*Dendroica nigrescens*] is another of the few that have hardly any yellow feathers. He is nearly all grey, black and white, with a yellow spot in front of each eye. He is one of the smaller Warblers, being barely five inches long. He lives in the forests "out West," where we may see him flying about among the tall trees, where he builds, and sings a pretty little warbling song.

"Way down South" the *Louisiana Water Thrush* [*Seiurus motacilla*], which is really a small Warbler, enchants us with its song. Its colouring is certainly Thrush-like, with wee speckled breast. In the swampy woods near New Orleans, or inland from Pensacola and thereabouts, its delicious clear, high voice may be heard. This Warbler nearly always builds its nest in some inaccessible place, over water, in the low fork of tree, or upturned root. In summer they come further North, even to the range of the Northern Water Thrush, which there takes its place.

The *Northern Water Thrush* [*Seiurus noveboracensis*] is also a Wood Warbler. It is a little smaller than the Louisiana Water Thrush, and its voice is not quite so varied and clear, yet I have listened with delight to the sweet trills, a sort of series of sharp, clear notes. This Warbler has also very much the colouring of the common Thrush of Europe, in fact it looks like a miniature. They build "far from the madding crowd" on the ground. Curiously enough, we heard them singing in August in the woods near Livingstone, where we watched two or three of them by a little rocky, mossy stream. I suppose in that rather high altitude they nest later than on the lower levels.

I have seen and watched ever so many other Warblers, but it would be tedious to enumerate them all.* Those who are interested in these small birds will find them well worth study, should they

* [We hope that Lady William Cecil will give us some more records of her very interesting observations.—ED.]

spend any time in the Northern part of the new world. It would also be interesting to trace them further South, through Mexico, Central America, and the West Indies. I have noticed several North American birds in Cuba and elsewhere that I have again seen in Canada, and it is always a happy incident when the little friend is recognised. And what an exciting moment is the sight of some rare or unexpected specimen, and how well worth a long day's journey, every bird-lover will understand.

ANECDOTE OF THE BREEDING OF THE GREY PARROT IN ENGLAND.

“In a former number (*‘Zoologist,’* p. 104) is recorded an instance of the Grey Parrot having laid eggs in this country. The circumstances under which this occurred are sufficiently curious, and deserving notice, but the following particulars are still more curious, relating, as they do, to the complexion of the process of incubation in the production of young birds, and may, I trust, prove interesting to the readers of the *‘Zoologist.’* Two Grey Parrots (*Psittacus erithacus*) were purchased in the market of Sierra Leone in 1840, when about six months old. They were brought to England, and then separated, one being domiciled at Hull, the other at Riccall, near York. In February, 1842, they were united at Riccall, and in the July following the female laid three eggs. She made no nest, and the eggs were taken from her. They were perfectly white, and about the size of a pigeon's egg. On June 10th, 1843, she again commenced laying, and laid two eggs. A nest was now made for her of flannel, and placed in a copper near the fire-place, where the old bird sat exactly four weeks, and one bird was hatched. This bird was reared, and is now in London. She again began laying in November last, and produced three eggs; on these she sat four weeks, and two birds were hatched; one of these soon died from cold, but the other is still living, and is a very fine bird. The cock bird occasionally assisted the female in sitting on the eggs. I have not had time to search for similar instances, but it is probable that some might be found, though they are certainly matters of rare occurrence.

I have thought it best to give a complete history of the birds down to the present time, and for the power to do so, I am indebted to the kindness of Mr. R. Fielding, the intelligent surgeon of the place where the fact occurred. It is strange that a second brood should have been hatched so late in the year as November; even in birds of our own climate, this would have been considered an extraordinary circumstance, but how much more so in the transplanted inhabitant of a tropical climate. The natural number of eggs appears to be three, though in the instance to which I have alluded at the beginning of this notice, seven are mentioned as the number. It is probable that this mention of the fact of the Grey Parrot breeding in this country may induce others, who have had opportunities of noting similar instances, to give the result of their observations to the pages of the 'Zoologist,' which journal may be considered a scrap-book, and this must be my apology for sending to its pages the above rough and imperfect contribution to the history and habits of the Grey Parrot.—BEVERLEY R. MORRIS, M.D., York, August 26th, 1844."

I came across the above interesting record on p. 725 of the second volume of the 'Zoologist,' published in 1844. It is possible that this curious account of the breeding of the Grey Parrot in captivity will be overlooked in the future, as there cannot be very many copies of the large volume of the 'Zoologist' in our libraries; I therefore thought it well to bring this record into the light of the present day. The pair of Grey Parrots must have been remarkably tame to sit on eggs in a copper vessel placed near a fire, probably in a kitchen, and to have brought off and reared two fine young birds.

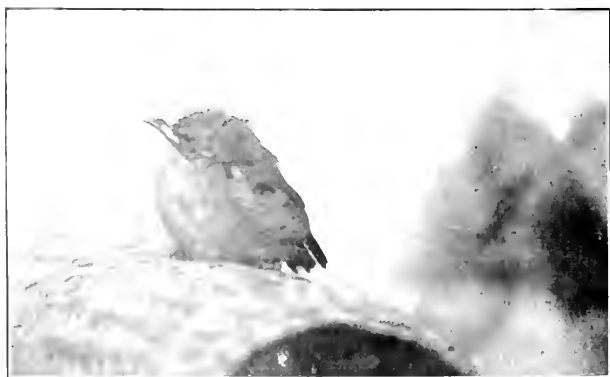
W. H. WORKMAN.

AN ANCIENT COCKATOO.

'Country Life' of November 11th publishes a photograph of "The oldest inhabitant of Sydney," a White Cockatoo, which died last May at the age of 119 years. The photograph looks like some weird reptile with a few bedraggled feathers sparsely scattered over its body. The upper mandible (why was it not clipped?) is enormously elongated, almost touching the bird's breast. It was hardly kind to permit this poor old rag-bag to live so long.



NEST OF YELLOW WINGED SUGAR-BIRD August, 1916.



YOUNG YELLOW WINGED SUGAR-BIRD

NOTES ON YOUNG YELLOW-WINGED SUGAR-BIRDS.

By Miss E. F. CHAWNER.

As announced in the August and September numbers of *The Avicultural Magazine*, my Yellow-winged Sugar-birds went to nest again soon after the death of their first family. The hen began to sit July 17th, and the first egg hatched out July 29th, the other, the day after. Exactly a week later their eyes opened, and they left the nest August 13th. The younger bird died the next day, but the other thrived, was well feathered, began to feed itself August 23rd on over-ripe banana and a little sop, and just when success seemed assured it became rickety, lost the use of its wings, and died on the 31st.

This brood had the advantage of the hot spell in July, and consequently developed faster and left the nest a full week earlier than the first family had done. They were reared on those little grey moths which abound in pasture at that season, with occasional caterpillars, crane-flies, and stick-insects; no mealworms.

The hen altered her proceedings this time and took as many insects as her beak would hold to the nest at once instead of making a separate journey with each item. She began to give sop as well as insects when the young were a fortnight old, and gradually fed them on it altogether.

She was, as before, a most devoted and careful mother, and it certainly was not her fault that both nestlings were not fully reared; the weather was magnificent and everything in my favour. I feel, therefore, that there must have been mismanagement on my part. If the parent birds live until the next nesting season comes round I shall hope to do better; meanwhile, if anyone will be kind enough to point out how I went wrong I shall be extremely grateful.

[Miss Chawner deserves complete success next year, and we trust she will have it. One does not understand how she could have done more.—ED.]

THE COLLECTION OF BIRDS OWNED BY MONSIEUR JEAN DELACOUR AT VILLERS- BRETONNEUX. (Continued from Page 41.)

PARROTS.

- Ara ararauna*, Blue and Yellow Macaw, 3 years, 1 ♂.
 — *chloroptera*, Red and Yellow Macaw, 1 year, 1 ♂.
 — *severa*, Severe Macaw, 2 years, 1 ♂.
 — *macao*, Red and Blue Macaw, 1 year, 1 ♂.
Cacata sulphurea, Lesser Sulphur-crested Cockatoo, 2 years, 1 ♂.
 — *hematuropygia*, Red-vented Cockatoo, 2 years, 1 ♂.
 — *moluccensis*, Red-crested Cockatoo, 1 year, 1 ♂, 1 ♀.
Eclectus pectoralis, Red-sided Eclectus, 1 year, 1 ♂, 1 ♀.
Lorius garrulus, Chattering Lory, 2 years, 1 ♂.
Trichoglossus novæ-hollandiæ, Swainson's Lorikeet, 3 years, 1 ♂, 1 ♀.
 — *mittelli*, Mitchell's Lorikeet, 1 year, 1 ♂, 1 ♀.
 — *rubritorques*, Red-collared Lorikeet, 1 year, 1 ♂, 1 ♀.
Palæornis torquatus, Indian Ring-necked Parrakeet, 2 years, 1 ♂, 1 ♀.
Conurus pertinax, St. Thomas's Conure, 2 years, 1 ♂, 1 ♀.
Pyrrhura rhodoccephala, Red-headed Conure, 1 year, 1 ♂.
Cyanolyseus patagonus, Lesser Patagonian Conure, 1 year, 1 ♂, 1 ♀.
Conurus nanday, Black-headed Conure, 3 years, 1 ♂, 1 ♀.
Platycereus eximius, Rosella Parrakeet, 2 years, 1 ♂, 1 ♀.
 — *elegans* (Gm.), Pennant's Parrakeet, 2 years, 1 ♂, 1 ♀.
 — *pallidiceps*, Mealy Rosella, 2 years, 1 ♂, 1 ♀.
 — *browni*, Brown's Parrakeet, 1 year, 1 ♂, 1 ♀.
Agapornis nigrigenis, Black-cheeked Lovebird, 2 years, 1 ♂, 2 ♀.
 — *pullaria*, Red-faced Lovebird, 1 year, 1 ♂, 1 ♀.
 — *cana*, Madagascar Lovebird, 2 years, 2 ♂, 2 ♀.
Psittacula passerina, Blue-winged Parrotlet, 3 years, 2 ♂, 2 ♀.
Melopsittacus undulatus, Budgerigar, 5 years, 5 ♂, 5 ♀ ; 10 young.

PASSERINE BIRDS, ETC.

- Turacus buffoni***, Buffon's Touracou,* 2 years, 1 ♂, 1 ♀ ; 2 young.
Ramphastus discolorus, Green-billed Toucan, 1 year, 1 ♂, 1 ♀.

* The Touracos laid 8 eggs and had 8 young in 1914. They only reared one killing the others. In 1915 they killed the first pair and reared the second pair. They have lately (Oct., 1916) reared another young one.

Pteroglossus castanotis, Chestnut-eared Aracari, 1 year, 1 ♂, 2 ♀.

Selenidera maculirostris, Spot-billed Toucanet, 1 year, 9 ♂, 2 ♀.

Aulacoramphus prasinus, Green Toucanet, 2 years, 2 ♂, 3 ♀.

Momotus momota, Motmot, 2 years, 1 ♂.

Corvus monedula, Jackdaw, 2 years, 1 ♂.

Urocissa sinensis, Chinese Blue-pie, 3 years, 1 ♂, 1 ♀.

Dendrocitta rufa, Wandering Tree-pie, 1 year, 1 ♂, 1 ♀.

Xanthura inca, Peruvian Jay, 4 years, 2 ♂, 2 ♀.

— *cyanocapilla*, Guatemalan Jay, 4 years, 3 ♂, 3 ♀.*

* If from Mexico it is *X. luteosa*.

Garrulus lanceolatus, Lanceolated Jay, 1 year, 1 ♂.

Garrulax leucolophus, White-crested Jay-thrush, 1 year, 1 ♂.

— *albigularis*, White-throated Jay-thrush, 1 year, 1 ♂, 1 ♀.

Trochalopteron rufigularis, Red-throated Laughing-thrush, 1 year,
1 ♂, 1 ♀.

Gracula religiosa, Lesser Hill-mynah, 4 years, 1 ♂, 1 ♀.

Lamprocolius aeneus, Long-tailed Glossy Starling, 5 years, 1 ♂, 1 ♀.

— *acuticaudus*, Wedge-tailed Glossy Starling, 5 years, 2 ♂.

— *sycobius*, Green Glossy Starling, 4 years, 1 ♀.

— *chloropterus*, Green-winged Glossy Starling, 4 years,
1 ♂, 2 ♀.

— *auratus*, Purple-headed Glossy Starling, 1 year, 1 ♂,
1 ♀.

Acridotheres tristis, Common Mynah, 5 years, 1 ♂.

— *ginginianus*, Indian Mynah, 5 years, 1 ♂, 1 ♀.

— *crystallocephalus*, Crested Mynah, 5 years, 3 ♂, 3 ♀.

— *grandis*, Siamese Mynah, 5 years, 3 ♂, 3 ♀.

Poliopsar burmanicus, Burmese Starling, 5 years, 3 ♂, 3 ♀.

Temenuchus pagodarum, Pagoda Starling, 5 years, 1 ♂.

Dilophus carunculatus, Wattled Starling, 5 years, 4 ♂, 4 ♀.

Pastor roseus, Rose-coloured Pastor, 5 years, 2 ♂, 1 ♀.

Cacicus persicus, Yellow Cassique, 1 year, 1 ♂.

Ostinops decumanus, Crested Cassique.

Icterus jamaicae, Brazilian Hangnest, 6 years, 9 ♂.

— *vulgaris*, Common Hangnest, 6 years, 3 ♂.

— *gularis*, Black-throated Hangnest, 4 years, 3 ♂.

Sturnella militaris, Military Starling, 1 year, 1 ♂, 1 ♀.

- Icterus mesomelas*, Black-throated Hangnest, 5 years, 3 ♂.
- *wagleri*, Wagler's Hangnest, 2 years, 4 ♂.
- *bullocki*, Bullock's Hangnest, 1 year, 2 ♂.
- *auricapillus*, Golden-headed Hangnest, 1 year, 2 ♂.
- Amblyrhampus holosericeus*, Red-headed Marsh-troupial, 4 years, 1 ♂.
- Xanthocephalus longipes*, Yellow-headed Marsh-bird, 2 years, 1 ♂,
1 ♀.
- Merula merula v. alba*, White Blackbird, 2 years, 1 ♂, 1 ♀.
- Melanotis caerulescens*, Bluish Thrush, 2 years, 1 ♂.
- Mimocichla rubripes*, Red-legged Cuban Thrush, 2 years, 1 ♂.
- Pomatorrhinus erythrogenys*, Scimitar Babbler, 3 years, 1 ♂.
- Copsycus macrourus*, Shama, 4 years, 1 ♂.
- *sularis*, Dhyal Bird, 5 years, 1 ♂.
- Chimarrhornis leucocephala*, 1 year, 1 ♂.
- Chloropsis aurifrons*, Gold-fronted Fruit-sucker, 2 years, 2 ♂.
- Paradisea apoda*, Great Bird of Paradise, 1 year, 1 ♂.
- Cyanops davisoni*, Davison's Barbet, 1 year, 1 ♂.
- Myiadestes obscurus*, Solitaire (Clarino), 1 year, 1 ♂.
- Stoparola melanops*, Verditer Fly-catcher, 1 year, 1 ♂,
- Tanagra ornata*, Archbishop Tanager, 3 years, 1 ♂.
- Tachyphonus coronatus*, Crowned Tanager, 2 years, 2 ♂, 1 ♀.
- Tanagra episcopus*, Bishop Tanager, 2 years, 4 ♂, 2 ♀.
- *cianocephala*, Blue-headed Tanager, 1 year, 3 ♂.
- Ramphocelus brasiliensis*, Scarlet Tanager, 3 years, 3 ♂, 1 ♀.
- Calliste tricolor*, Three-coloured Tanager, 1 year, 4 ♂, 3 ♀.
- *punctata*, Spotted Green Tanager, 2 years, 1 ♂.
- *tatao*, Paradise Tanager, 1 year, 1 ♂.
- *fastuosa*, Superb Tanager, 1 year, 2 ♂, 1 ♀.
- Euphonia violacea*,* Violet Tanager, 1 year, 3 ♂.
- Dacnis cayana*, Blue Sugar-bird, 1 year, 1 ♂, 1 ♀.
- Chlorophanes spiza*, Black-headed Sugar-bird, 2 years, 1 ♂, 1 ♀.
- Nectarinia famosa*, Malachite Honeysucker, 1 year, 1 ♂.
- Cinnyris zeylonica*, Amethyst-rumped Honeysucker, 1 year, 1 ♂, 1 ♀.
- *asiatica*, Purple Honeysucker, 1 year, 1 ♂.
- *amethystina*, Gold-fronted Honeysucker, 1 year, 1 ♂.
- Cæreba cyanea*, Yellow-winged Sugar-bird, 2 years, 4 ♂, 1 ♀.

* The Buff Tanager is *E. musica* (Gm.).

- Cæreba cærulea*, Purple Sugar-bird, 1 year, 2 ♂.
- Liothrix luteus*, Red-billed Liothrix, 5 years, 5 ♂, 4 ♀.
- Mesia argentauris*, Silver-eared Mesia, 2 years, 1 ♂, 1 ♀.
- Otocompsa emeria* or *jocosa*, Red-eared Bulbul, 3 years, 2 ♂, 1 ♀.
- Gubernatrix cristata*, 3 years, 1 ♂, 1 ♀; 4 eggs, 2 young.
- Cardinalis virginianus*, Virginian Cardinal, 4 years, 3 ♂, 2 ♀.
- Paroaria cucullata*, Red-crested Cardinal, 4 years, 2 ♂, 1 ♀.
- *larvata*, Red-headed Cardinal, 4 years, 1 ♂, 1 ♀.
- Guiraca cærulea*, Northern Blue Grosbeak, 2 years, 2 ♂.
- Hedymeles ludovicianus*, Rose-breasted Grosbeak, 2 years, 1 ♂, 1 ♀.
- *melanocephalus*, Black-headed Grosbeak, 2 years, 1 ♂, 1 ♀.
- Eophona personata*, Japanese Hawfinch, 1 year, 2 ♂.
- Cyanospiza ciris*, Nonpareil Bunting, 2 years, 6 ♂, 3 ♀.
- *versicolor*, Varied Nonpareil, 2 years, 1 ♂.
- *leclancheri*, Rainbow Bunting, 2 years, 4 ♂, 1 ♀.
- *cyanea*, Indigo Bunting, 2 years, 7 ♂, 2 ♀.
- Munia oryzivora*, Java Sparrow, 6 years, 3 ♂, 3 ♀.
- — var. *alba*, White variety, 6 years, 5 ♂, 6 ♀; 4 young.
- *malacca*, Three-coloured Mannikin, 4 years, 2 ♂, 2 ♀.
- *maja*, White-headed Mannikin, 4 years, 2 ♂, 2 ♀.
- *ferruginosa*, Javan Maja-finch, 4 years, 2 ♂, 2 ♀.
- *punctulata*, Common Spice-finch, 4 years, 2 ♂, 2 ♀.
- Uroloncha striata*, Striated Finch, 2 years, 2 ♂, 2 ♀.
- Aidemosyne cantans*, African Silver-bill, 4 years, 3 ♂, 3 ♀.
- Donacola castaneithorax*, Chestnut-breasted Finch, 4 years, 1 ♂, 1 ♀.
- Spermestes nana*, Bib Finch, 4 years, 3 ♂, 3 ♀.
- *cucullata*, Bronze Mannikin, 4 years, 4 ♂, 4 ♀,
- *gambiensis*, Mannikin, 4 years, 1 ♂.*
- Staganopleura guttata*, Diamond Sparrow, 3 years, 1 ♂, 1 ♀; 4 eggs.
- Poephila cincta*, Parson Finch, 4 years, 1 ♂, 2 ♂: 3 eggs.
- *acuticauda*, Long-tailed Grassfinch, 2 years, 1 ♂, 1 ♀.
- *personata*, Masked Grassfinch, 2 years, 1 ♂, 1 ♀.
- Stictoptera bichenovii*, Bicheno's Finch, 1 year, 1 ♂, 1 ♀.

(To be continued.)

* No *Spermestes gambiensis* is included in Shelley's 'Birds of Africa.'—A. G. B.

CROWNED CRANES IN UGANDA.

(From a letter from F. M. ISEMONGER, District Officer, Mbale Uganda, September, 1915).

“ . . . Gardening has taken up most of my spare time lately ; this week I have had rose-trees and mangoes moved out of the nurseries. One early morning my young pet Crested Crane followed me down there, and on the way we met two huge full-grown wild Cranes. I hid behind a tree and watched a fascinating scene. The wild birds stalked up and circled round my pet with their gorgeous wings outstretched over it. The young one took sundry pecks from them very meekly and then opened its beak as if to be fed. Very curious, that, as it is long past the age when it would be fed by its parents. It seemed to me almost an involuntary action, a remembrance of the last time it was with its own kind. The three stalked about together and fed on grass seed and grasshoppers for some time, but, at my call, the pet left the two wild ones and came to me. The old birds were much excited by this, but by going gently with the pet I got within a few yards of them. The full-grown crane has magnificent plumage and colouring—black beak, black velvet, pompom, gold crest, slender neck of beautiful pearl grey, rich red-brown wings streaked with white and black feathers, with two or three feathery pure gold ones overlying the tips. A brilliant crimson pouch adds a fine finish. About 4 ft. high, and very graceful. . . . My pet lets the children handle him, and is generally friendly, but shows a marked preference to me—as he should ! . . . ”

AN OUTDOOR AVIARY IN THE REIGN OF LOUIS XVI.

In the very interesting book by Nesta H. Webster lately published, ‘The Chevalier de Boufflers,’ we find that Madame de Sabran frequently stayed with the old Duc de Nivernais at Saint-Ouen, just outside Paris. One reads that—“ Nothing more enchanting than this country house of the Duc de Nivernais can be imagined. It stood on the banks of the Seine, and from the magnificent terrace

distant views could be seen through vistas cut in the surrounding trees. . . . Birds were the particular passion of the duke, and he loved them so much that he could not bear to shut them up in cages, so he hit upon an original device for keeping them near him. Close to the château was a little wood through which a stream wandered, and over the whole of this the duke had almost invisible wire netting stretched, covering the tree-tops and so transforming the wood into an immense aviary. Clumps of flowers were then planted amongst the undergrowth, the duke's writing-table and book-case were arranged at the foot of a tree in the middle, and lastly, quantities of birds were turned loose inside the netting. Here the dear old man sat peacefully at work every morning, composing verses or translating Latin poets, whilst the stream murmured at his side, and countless happy warblers flew around his head and perched in the branches above him."

One wonders whether the Chevalier de Boufflers brought the old Duc de Nivernais any birds from Senegal, of which at one period he was governor, for we read that on his first return to France (1786) he arrived "with the oddest presents for all his friends. There was a Parrakeet for the Queen (Marie Antoinette) which talked Senegalese and French with equal fluency, and had been carefully instructed in suitable greetings for its royal owner: 'Ou est la reine? Je veux la voir. La voilà!' 'Ah! qu' elle est belle! Je veux la voir toujours, toujours.'" Several birds died on the voyage.

The Chevalier de Boufflers in his journal told Madame de Sabran: "I have lost a green parrot with a red head that I had meant for Elzéar (her son), a spoonbill for the Bishop of Laon, five or six parrakeets; and finally, last night I was present at the death of a poor yellow parrot, the first that had ever been seen in Africa, and as he was unique amongst his kind, I thought of giving him to one who is unique amongst her kind, and who is to the human race what the human race (meaning Madame de Sabran herself) is to parrots." This yellow parrot must have been a Lutino.

Mrs. Webster writes of these offerings as "the oddest presents"; but aviculturists would rather call them "interesting and welcome gifts."

PROHIBITED IMPORTATION OF LIVE BIRDS.

The following communication comes from the President of the Board of Trade:

"The importation of Live Birds, other than Poultry and Game, was prohibited by a Proclamation issued on the 3rd October. Licences to import all prohibited articles from France are issued only by the Paris Branch of our Restricted Imports Department, and this Branch acts on applications *visés* by the French Ministry of Commerce. The right course is for the consignors or exporters of the birds to communicate with the Ministry at No. 66, Rue de Bellechasse, Paris.

"Yours very truly,

Board of Trade,

"R. W. MATTHEW."

Whitehall Gardens, S.W. ;

30th October, 1916."

The Ministry above-mentioned, after having passed such a communication, transmit it to the English bureau, which, if there are no objections, will issue a licence for importation in duplicate—one to the consignee and the other to the consignor, or exporter. This licence, however, only touches on birds in France, and apparently on birds of France, since the regulation runs—"Enfin, le bénéfice des licences ne devant s'appliquer qu'aux produits d'origine française—."

FORM OF DEMAND FOR AUTHORITY TO IMPORT CERTAIN GOODS INTO ENGLAND.

*Je soussigné (nom, qualité et adresse)
demande que l'importation en Angleterre des marchandises désignées
ci-après et déclarées être d'origine ou de fabrication française soit
autorisée.*

Nom, qualité et adresse de l'expéditeur.....

Nom, qualité et adresse du destinataire

Port de débarquement dans le Royaume-Uni.....

Nature de la marchandise.....

(Indication à fournir en français et en anglais.)

Nombre, marques et numéros des colis.....

Poids des colis.....

Date.

Signature.

NOTA.—Cette demande, appuyée d'une attestation d'origine, émanant de la Chambre de Commerce ou, à défaut, de l'autorité municipale, doit être présentée ou adressée au Ministère du Commerce (Service Technique), 66, rue de Bellechasse, Paris.

NOTES.

A pair of Lesser White Egrets which arrived in August with broken flight feathers have moulted and now roost on the lower branches of some willow trees on a small island in the centre of one of the ponds close to the house at Brinsop Court. Will they remain? Up till now they come for food, and are absurdly tame, and when hungry will run along the paved paths beneath the windows if they catch sight of one within the house: but they must be shut in when the cold weather arrives. They look extremely picturesque when standing at the foot of a clump of pampas grass, their snowy forms reflected in the water. If they think any dace have been caught for them, they will run at one's heels like dogs or poultry, and follow anywhere. But the dace are not always forthcoming, and now as a rule raw rabbit is their fare. They are evidently male and female, one bird being of stouter build, which has grown his 'aigrettes,' in other words, his dorsal plumes. It is a relief to see those feathers in their proper place, instead of on some woman's hat.

* * * *

If once various species of birds take to cheese, they are very greedy over it. Amongst Mr. Astley's, it is eagerly eaten by two nightingales, a Wilson's Paradise-bird, a Motmot, a Shamah, a Blue-headed Rock-Thrush, etc.

* * * *

Three British Shelduck hatched at Brinsop, although as tame as fowls, fled away one Sunday, and were seen no more for several weeks, when a gardener saw them flying round the house.

In the first week of October (they left in August) one was in the goose paddock, but it rose on the wing when approached, and once more disappeared.

The geese never go, although six Magellanic Ruddy-headed hybrids, two Ruddy-headed, a Ross' Snow Goose and some Canadians

fly round, and feed in different meadows in the immediate vicinity. And the Maned Geese (Australian "Wood Duck") do likewise, but they keep still nearer home.*

* * * *

The Brazilian Motmot takes almost exactly two calendar months to grow his two central tail-feathers, and even then the racquets did not appear through the falling off of the webbing above them, until about the tenth week.

* * * *

MR. TREVOR-BATTYE writes that whilst three young Mandarin Ducks were swimming on a pool in his grounds, a stoat suddenly jumped off the bank almost on to them, and followed them *swimming* across the water.

* * * *

He also saw a Black Redstart on the balcony outside his bedroom in October (near Petersfield, Hants).

* * * *

LADY SAMUELSON writes that she has been very lucky with some of her birds. *Ruficaudas* had three broods, six young in the first, three in the second (of which one bird was killed), and six in the third. A pair of Blue-breasted Waxbills reared three young, and there was also a brood of Gouldian Finches. Melba Finches twice had a nest of young, but just as they were ready to fly, the parents deserted them, or pulled the young out. Of Zebra Finches, Lady Samuelson says she has a cloud!

* * * *

MR. F. E. BLAAUW writes from Gooilust, Holland, that he has bred the following this season :

Two White-necked Cranes, six Trumpeter Swans, two Emperor Geese, one Patagonian Black-faced Ibis, six South African Black Duck (*Anas sparsa*), two African Red-billed Teal, four Long-billed Parakeets, and a lot of "the usual things."

* * * *

MR. GUY FALKNER sends a note about his pair of Swainson's Lorikeets which nested in the hollow trunk of a walnut-tree; but

* [Alas ! both were taken by a fox in November, whereby perished two most charming pets.—ED.]

unfortunately the hen bird was killed by Mr. Falkner's dingo when she was picking up grit on a path.

Mr. Falkner adds that he managed to secure another "hen," but it turned out to be a cock !

* * * *

Mr. GEORGE LOW writes that when he was staying with a friend on an island on Lough Erne last May, he essayed the rearing of four Willow Warblers from the nest. They did quite well on yolk of egg and May-flies until in an evil moment he took the advice given in a book, and added a very little milk and biscuit, with the result that all died except one. The survivor was brought home to Kingstown and put in a large cage, from which the little bird constantly was allowed to come out, and would fly on to Mr. Low's book, writing-paper, or shoulders, and was altogether fascinating. The contents of a butterfly-net were liberated sometimes, when the Willow-Warbler showed himself marvellously expert at catching every insect. It happened that there was a young family of Willow Warblers in the neighbourhood, which used to come on to the roof of the aviary outside the window, and "Mickey" was quickly discovered. The wild birds used to fly up, to his great annoyance, and cling to the wire-netting with which the top of the window sash is replaced when the window is open.

Mr. Low wanted a wild male, so he cut a small square in the netting, and supported a small door with a piece of stick and cord attached.

Sitting in his arm-chair, he very soon caught two of the Willow Warblers. The sequel made him wish he had left them at liberty. The two wild-caught birds looked happy in the aviary for about two months, catching every insect that made its appearance, but they also apparently partook too freely of the biscuit portion of the insectile food and died from fatty degeneration of the liver, although looking outwardly in splendid condition. And poor "Mickey," the hand-reared Willow Warbler, dropped off his perch one night from a fit of apoplexy.

Mr. Low comes to the conclusion that tender warblers should not be mixed with other birds, as their correct mixture of food cannot be given.

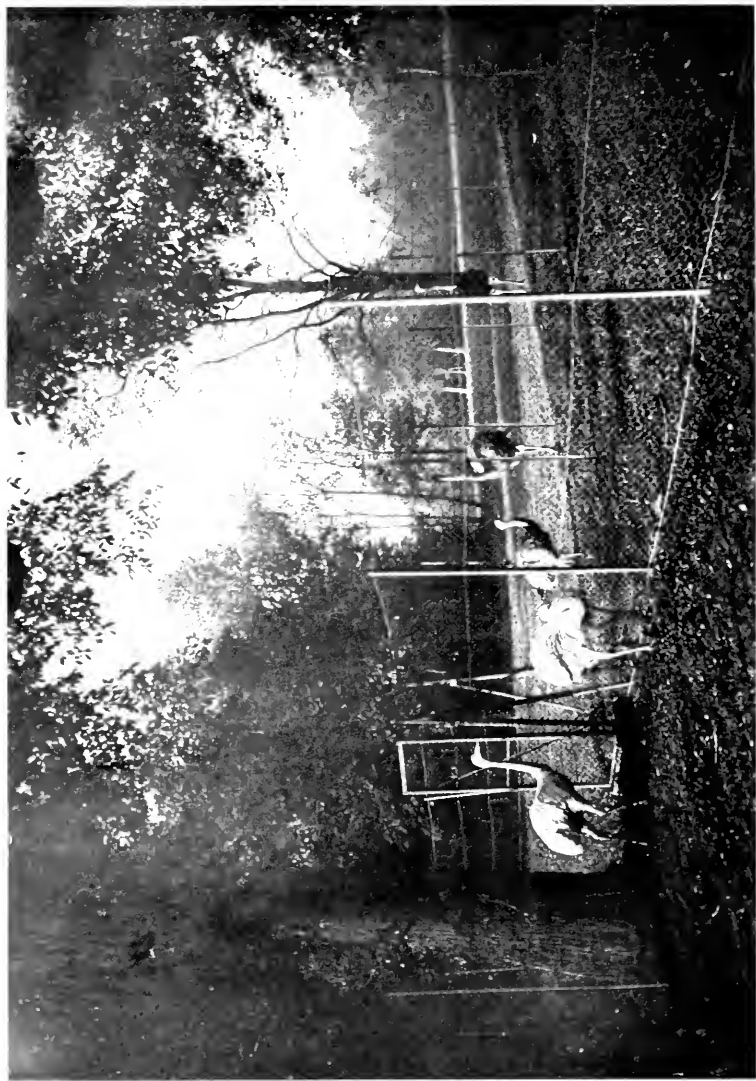
CORRESPONDENCE.

PARROT SUFFERING FROM CRAMP

Will someone advise me as to a remedy for my rare Lesson's Amazon? For a month or two the bird will be apparently perfectly well, and then it is suddenly seized with a kind of cramp which affects the legs and feet. The legs straighten and the bird at times is unable to grasp its perch, when it stumbles about on the drawer of the cage, with feet partly contracted. A few hours afterwards the attacks disappear, although some have lasted more or less for two or three days.

I cannot induce it to eat seed, nuts, or grain. It will only feed on boiled rice, potato, custard, and the like. The parrot comes out of his cage every day and exercises his wings, and is apparently in good health otherwise.

H. D. ASTLEY.



WHITE AND GREY RHEAS, AND OSTRICHES AT VILLERS-BRETONNEUX.

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NOTES ON MY BIRDS AT VILLERS- BRETONNEUX IN 1916.

By MONSIEUR JEAN DELACOUR.

[Written for the 'Avicultural Magazine,' and translated from the French.]

Although my departure for the Army dated from August, 1914, I was able that year to see something of my birds; a convalescence, some leave, and, above all, the chance that brought me near home during the summer, gave me the opportunity of paying fairly frequent visits, and to obtain fleeting glimpses of them.

I came to the conclusion that the close proximity of the battles had no bad effect upon my birds, except that a much greater number of eggs were unfertile, a fact which is no doubt annoying, but not important on the whole. Considering their nearness to the "front" during more than two years, the essential point was not so much the increase of their numbers as the decrease. The coming and going of aviators, their fights, the appalling bombardment in the near neighbourhood seemed to trouble the birds very little and to cause no damage amongst them.

The big birds continue to prosper.

Up till now an Ostrich has laid four eggs, whilst her mate has become more and more wicked, and has several times attacked his keeper. Neither have they suffered from the snow in which they walked about for a fortnight at the end of the winter, only going into their unheated shed for the night.

The Emeus laid about twenty eggs at the beginning of the year, but the male would not incubate them.

Two young white Rheas hatched in 1915 at Draveil, near Paris, and sent by M. Hermenier to replace the one killed by the Germans, are now adult and in magnificent condition, and are, I believe, male and female.

The grey Rheas have had young, but only one was reared, the others having died owing to ruptures at their birth. One of the adult females was killed against a tree during a sudden alarm, which birds of this genus are very prone to, especially Rheas, at the sight of anything strange, such as an unknown dog, a motor-car, etc. These stupid birds begin rushing about, and continue to do so even after the object of their alarm is out of sight, knocking themselves against the wire meshing, with their feathers torn out and covered with blood, and remaining several days without eating.

These alarms are contagious, and when the Rheas begin to rush about, the Emeus and Ostriches follow suit.

The Waders, etc., thrive.

The Sarus Cranes are separated from the other species, but the European, Stanley, Demoiselle, and Crowned Cranes live together amicably; and have done so for five years. The Egrets, *egretta* and *candidissima*, have their enclosure, but have evinced no inclination to nest. Although they never have fish to eat, they are in perfect condition. The smaller waders, such as Ibis, Gallinules, Ruffs and Reeves, Turnstones, Plovers, etc., keep in good health, but the Avocets died after being three years in captivity.

There is nothing of interest to note with regard to the waterfowl, very little reproduction and few deaths. Some are full-winged, and only fly to escape from any danger. The Bernicle and Maned Geese have not laid, nor yet the Ringed Teal. There is a little company of Falcated Duck on the water, which give a fine effect.

The gallinaceous birds are numerous; the most interesting amongst those that have bred being the Monauls, Sæmmering's, and Mikado \times Elliot's Pheasants.

A male Elliot's Pheasant mated with a Reeves; but, unfortunately, the one young bird died when a month old.

The Doves have not been very successful in their breeding, sharing, as they do for the most part the pheasants' avaries, and not having the necessary privacy and quiet.

Many are still unmated, owing to the German invasion in 1914; Bleeding-hearts, Crested Doves, Smith's Bronzewings, Green-winged Doves, etc., etc., of which only one sex remains. Certain species have been put together, from which perhaps some curious hybrids may be produced.

The Crowned and Victoria Crowned Pigeons, as well as the Nicobar, have not nested. *Columba speciosa* (Fair Pigeon) continues to rear a numerous progeny with its mate, *C. maculosa*.

The Red-crowned Pigeons (Pigeon hollandais) are in magnificent condition, but always unsociable. These are beautiful birds, and very robust, provided they have access to an open-air flight. They have thrived now for three years upon rice boiled in milk, bananas, and crushed hemp-seed.

The Macaws and Cockatoos are in the open air from April till November, and live in a friendly manner, except for a few harmless disputes. The Macaws stand cold nights admirably and long rainy days without shelter. The Cockatoos—Leadbeater's, Goffin's, and Rosy—do not mind the winter.

Buffon's Touracos have reared a young one under the same conditions as in 1915, after having destroyed their first clutch of eggs, and as I write (October, 1916), a third clutch has been laid. The 1915 bird equals its parents in beauty, but it is still difficult to distinguish its sex.

The Toucans have lived for more than three years, and are in fine plumage; they do not leave their large compartment in the heated corridor.

The five species which I possess have all the same habits, and are very tame and amusing.

These birds are not infrequently ailing, remaining for several days without eating, and their feathers ruffled, having no power to hold on to the perches.

Other species of birds would succumb under such circumstances, but the Toucans, on the contrary, recover after a few days, so that I am not very anxious when it is reported to me that one is ill.

Various birds, such as foreign Thrushes, Jays, etc., live well; out of doors in summer, indoors in winter.

Troupials decidedly thrive better under such circumstances. The Shamahs and the White-crested Garrulax stand out amongst all the other birds as admirable songers. The Grackles, especially the larger species from Java, are very entertaining with their curious and quaint cries and imitations. In the course of last year I lost individuals of that family, such as *Trochalopteron ruficularis*, *Chimarrhornis leucocephala*, *Myadestes obscurus*, *Garrulax albigularis*.

Of the seed-eating Passerine birds, there is nothing to record, except that they thrive and breed regularly.

The Weavers remain out of doors, and have done so for two years, enduring great cold in spite of their Senegalese origin.

The various Tanagers are kept indoors; they are fed, as are the Sugar-birds, on Savoy biscuit, fruit, and the mixture given to the Sunbirds, namely, honey, Nestlé's milk, and Mellin's food, in water.

It is the only way of warding off illnesses which so often attack them.

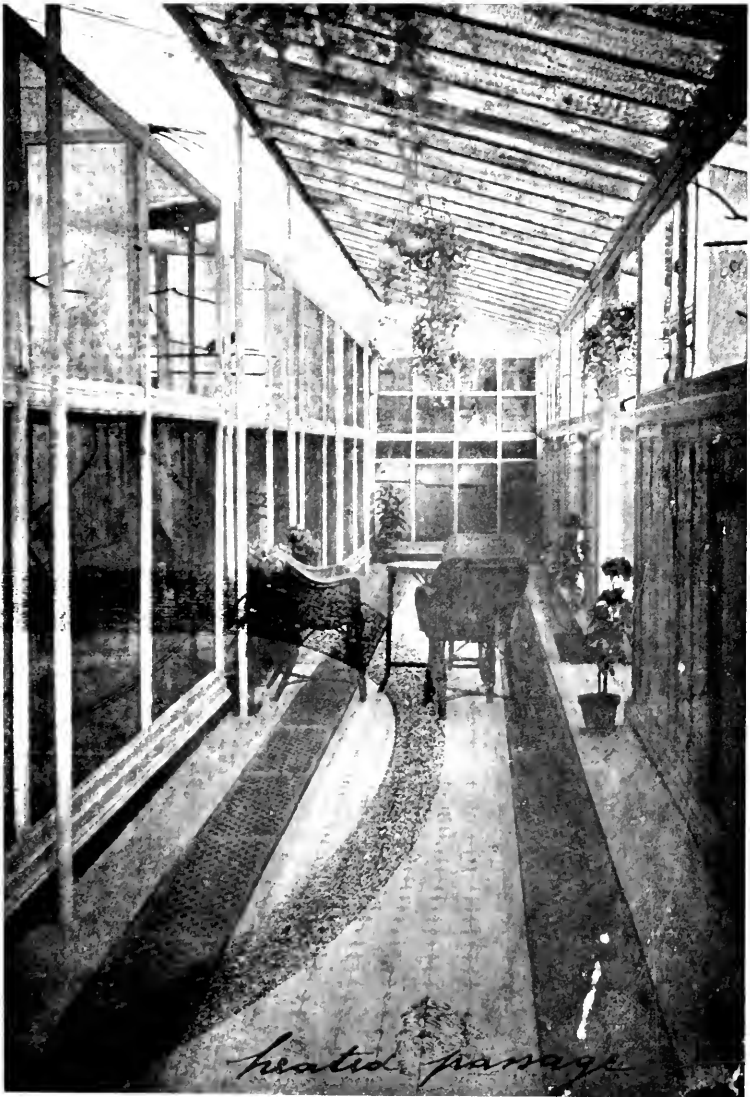
The Sugar-birds are fed exclusively on the liquid food. Sunbirds live well on this mixture, with the addition of small insects seldom partaking of fruit.

I have six species at Villers-Bretonneux, namely, *Nectarinia famosa*, *Cinnyris chalybeus*, *C. amethystinus*, *Arachnechthra zeylonica*, *A. asiatica* and *Æthopyga saturata*.

This latter Sunbird, unlike the others, is fond of banana. It seems to me indispensable to keep these birds in separate cages, or they will sooner or later kill one another. It is also necessary to keep clean paper (or blotting-paper) on the trays of the cages.

A few words as to the Paradise-birds. Alas, they only number three specimens: an immature male of the Greater Paradise-bird (*Paradisæa apoda*), and two males, one adult, the other approaching that stage, of Wilson's (*Schlegelia wilsoni*).

The Greater Paradise-bird is still fawn-coloured, with the head of a deeper tint, the eyes yellow, the bill white. He is not yet brilliant in appearance, but one is able to see how magnificent he will be later on. His *menu* consists of insectile mixture, fruits, and a



heated passage

HEATED CORRIDOR, WITH AVIARIES, AT VILLERS-BRETONNEUX.

certain number of mealworms. Banana he does not appreciate, but captures a great many insects. He is a very wild bird.

The Wilson's Paradise-birds each occupy a roomy compartment in the heated corridor. A most lovely species, with the brilliant blue skin on the crown of the head, the yellow "ruffle" at the back of the neck, the back of a bright Venetian red, and the frontal shield of shining and deep green with violet-brown reflexions, the blue legs and feet, and above all the two curious crossed wire-like plumes of the tail, which curve round and almost touch the ends of the wings.

These birds are very tame, and take insects, etc., from the fingers. They are fed on the same diet as the Greater Bird of Paradise.

These, along with the Sunbirds, came to me from the collection of the Marquis de Ségur, which he had in Paris.

In conclusion, I would write a few words about the Motmot. This bird, a relative of the Rollers, is most amusingly tame, his red eyes and his serrated bill giving him an unusual appearance, which, in addition to his short legs and small feet and his long racqueted tail, never fail to attract visitors to my birds. I have not been able to study the moult of the Motmot, but I am inclined to believe that the racquets form after the two tail feathers are grown, on which they appear.

LIST OF BIRDS. (Continued from Page 60.)

Bathilda ruficauda, Starfinch, 4 years, 1 ♂, 1 ♀.

Pytelia phaenicoptera, Crimson-winged Waxbill, 3 years, 1 ♂, 1 ♀ ;
6 eggs, 2 young.

Ægitha pectoralis, Pectoral Finch, 1 year, 1 ♂, 1 ♀.

Poëphila gouldiæ, Black-headed Gouldian Finch, 2 years, 2 ♂, 3 ♀ ;
6 eggs, 2 young,

— *mirabilis*, Red-headed Gouldian Finch, 2 years, 2 ♂, 1 ♀ ;
4 eggs, 1 young.

Erythrura psittacea, Parrot Finch, 1 year, 1 ♂, 1 ♀.

Neochmia or *Erythrura phædon*, Crimson Finch, 1 year, 1 ♂, 1 ♀.

Erythrura prasina, Pintailed Nonpareil, 4 years, 2 ♂, 1 ♀.

Sporæginthus amandava, Amaduvade Waxbill, 4 years, 7 ♂, 6 ♀ ; 6
eggs, 2 young.

- Stictospiza formosa*, Green Amaduvade, 4 years, 3 ♂, 3 ♀.
- Estrilda cinerea*, Grey Waxbill, 4 years, 10 ♂, 8 ♀.
- *astrilda*, St. Helena Waxbill, 4 years, 6 ♂, 4 ♀.
- *phænicotis*, Cordon-bleu, 4 years, 12 ♂, 7 ♀.
- Lagonosticta incana*, Black-tailed Lavender Finch, 4 years, 4 ♂, 3 ♀.
- *senegala*, Common African Firefinch, 4 years, 2 ♂, 1 ♀.
- Sporæginthus subflavus*, Gold-breasted Waxbill, 4 years, 14 ♂, 10 ♀.
- *melpodus*, Orange-cheeked Waxbill, 4 years, 15 ♂, 9 ♀.
- Hypochæra ænea*, Combassou, 4 years, 16 ♂.
- Zonogastis melba*, Crimson-faced Waxbill, 1 year, 2 ♂, 2 ♀; 4 eggs, 2 young.
- *afra*, Red-faced Waxbill, 1 year.
- Estrilda erythronota**, Black-cheeked Waxbill, 1 year, 1 ♂, 1 ♀; 5 eggs, 1 young.
- Granatina granatina**, Violet-eared Waxbill, 1 year, 1 ♂, 1 ♀; 3 eggs.
- Ortygospiza polyzona**, Quail Finch, 2 years, 1 ♂, 1 ♀.
- Serinus canarius*, Wild Canary, 4 years, 2 ♂, 4 ♀; 15 eggs, 6 young.
- — Wild Canary × Hooded Siskin, hybrid, 1 year, 1 ♂.
- Chrysomitris cucullata*, Hooded Siskin, 2 years, 1 ♂, 1 ♀.
- Melopyrrha nigra*, Black Seed-finch, 4 years, 2 ♂, 3 ♀.
- Spermophila lineata*, Lineated Finch, 4 years, 1 ♂, 1 ♀.
- Sycalis flaveola*, Saffron-finch, 6 years, 5 ♂, 1 ♀; 8 eggs, 4 young.
- Serinus icterus*, Green Singing-finch, 3 years, 4 ♂, 3 ♀.
- *leucopygius*, Grey Singing-finch, 3 years, 2 ♂.
- Emberiza rutila*, Ruddy Bunting, 3 years, 2 ♂, 2 ♀.
- Phonipara canora*, Cuban Finch, 2 years, 3 ♂, 1 ♀.
- Vidua principalis*, Long-tailed Whydah, 4 years, 12 ♂.
- Steganura paradisea*, Paradise Whydah, 4 years, 14 ♂.
- Penthetria albonotata*, White-winged Whydah, 5 years, 2 ♂.
- Penthetriopsis macrura*, Yellow-backed Whydah, 5 years, 1 ♂.
- Chera procne*, Long-tailed Whydah, 1 year, 1 ♂.
- Hyphantornis vitellinus*, Half-masked Weaver, 6 years, 1 ♂, 1 ♀.
- *melanocephalus*, Black-headed Weaver, 6 years, 1 ♂.
- Quelea quelea*, Red-billed Weaver, 4 years, 4 ♂, 2 ♀.
- Foudia madagascariensis*, Madagascar Weaver, 4 years, 16 ♂.
- Quelea erythrops*, Red-headed Weaver, 4 years, 1 ♂, 1 ♀.
- Pyromelana franciscana*, Orange Weaver, 4 years, 26 ♂.

Pyromelana flammiceps, Crimson-crowned Weaver, 4 years, 12 ♂.

Heterophantes melanogaster, Johnston's Black Weaver, 4 years.

15 ♂, 1 ♀ ; 8 eggs, 2 young.

Pyromelana nigriventris, Black-vented Weaver, 4 years, 2 ♂.

Amadina erythrocephala, Red-headed Finch, 4 years, 1 ♂, 1 ♀ ; 8 eggs, 4 young.

— *fasciata*, Ribbon-finch, 4 years, 6 ♂, 6 ♀.

Taniopyga castanotis, Zebra-finch, 4 years, 4 ♂, 4 ♀ ; 18 eggs, 8 young.

Monsieur Delacour had 1345 birds, representing 344 species, up to June, 1916.

M. Delacour wrote (October, 1916) that Field Marshal Sir Douglas Haig and several French generals had lately been to see his collection of birds, and that he had received unwelcome visitors in the shape of German shells.

SWALLOWS AT THE FRONT.

[By kind permission of the Editor of 'Country Life.']

At half-past seven on Easter Sunday the air-scout on the look out for hostile aircraft called me out to see the first Swallow. The jolly little beggar was hawking about over the guns catching insects in the most natural manner in the world. Although every now and then a gun boomed out its deadly message, the Swallow did not appear at all alarmed by the noise. High overhead our aeroplanes were flying, looking like somewhat larger birds against the perfectly blue sky. Every now and then the shots from the German anti-aircraft guns burst in little clouds of white smoke until the aeroplanes appeared at times surrounded by small clouds or balls of fluffy down.

Later in the day a service was held within a hundred yards of our position, and the Swallows skimmed backwards and forwards apparently unconcerned with the strange scene, and intent on gathering insects. I think, perhaps, some of us felt that the Swallows were messages from the dear homeland, and watched them wheeling and darting overhead while the chaplain intoned the

prayers to the sharp, insistent boom of the guns and the whistle of the bursting shrapnel from the "guns the foe were sullenly firing." A scene to live in one's memory for ever.

The next day the Swallows and House Martins had arrived in full force, and were twittering and circling round the eaves, flying in and out of the ruined houses and barns. Although the surge of battle had ebbed and flowed round these buildings and the whole aspect of the place had materially changed since the Swallows and Martins had left France and Flanders in the autumn, the change did not trouble them in the least. At one ruin I noticed them flying joyously in and out of a great shell hole, and later on I saw several pairs of Martins hurriedly nest building on the walls of a drawing-room, the ceiling of which had been swept away with the exception of a handsomely moulded cornice. No doubt this, to their mind, represented an ideal kind of eave. But it seemed strange to see the nests plastered above a fat baby Cupid, very pink and rosy, nestling among flowers, and entwined with true-lover's knots of blue ribbon painted on the panelled walls of a room where once stately dames and their friends had held high revel. The Martins twittered happily, adding tiny lumps of mud to the fast building nest, unheeding the associations of their surroundings.

The roads were very dry and dusty at the time, and the Martins would fly down to the clay near the horse troughs and wait until some water was spilt upon the ground; then they would gather mouth and throat full of the softened mud and fly back to their nests. The mode of adding the mouthfuls was for the Martin to cling to the wall, the tail acting as a prop to hold it in position. Then, working the beautiful white throat, the bird appeared to mix the saliva and mud, and then eject a small quantity on to the position selected. As soon as a ridge wide enough to perch upon had been built, the Martin sat on this and worked at the nest from the inside. As fast as one bird emptied its throat the other took its place, and went on with the task. They appeared to devote all the early part of the morning to nest building, the rest of the day to collecting food and resting.

The Swallows built several nests on the rafter of a big out-house which we used as a harness-room. The nests were only just

above our heads, but the Swallows slipped behind the rafters and constructed their nests and laid their eggs quite unheeding our presence. They would flutter about seeking insects, and often perched for a long time on the telephone wires. They looked very quaint trying to keep their balance in a high wind with their tails and wings being jerked into all sorts of absurd angles by the strength of the gale.

Both the hen and male birds appeared to share the trouble of sitting. Sometimes the House Martin in possession of the nest would put out a head and tweet as if annoyed that the mate did not relieve it. They did not appear to feed each other, but would take short turns in sitting. When the young were hatched both parent birds seemed to devote the whole time to feeding the little ones. The young were the most voracious creatures I ever saw. They would shriek with anxiety when they heard the beat of the returning bird's wing, and one would hang half out of the nest to prevent his brothers and sisters getting anything. The feeding went on from early dawn until almost too dark to see, and even then the youngsters demanded more with peevish cries and squeaks.

Once the Germans shelled our position for an hour and a half. We retreated to some cellars which had been sandbagged and waited there until the bombardment stopped. The place was struck several times, and one shell dropped into the cellars, but failed to explode, and did no damage to anyone. When the " strafing " was all over we found that one shot had taken off the greater part of the stable roof, the second had hit the end of the outhouse and demolished part of the wall. The Swallows apparently did not care, for they were not in the least perturbed by the noise of the shelling, and continued feeding their young ones as if nothing had happened. Before the day was over they were using the shell hole as a convenient entrance through which to pass backwards and forwards with food for their young.

When the young ones were old enough to leave their nests, we were astonished to find that each nest had contained five birds that appeared quite as large as their parents, except that they had no tails; these, however, grew at an extraordinary rate, until they soon equalled the parents' forked ones. All the birds that lived on the

same rafter associated together, and for some days ten very forlorn little birds sat in a humped-up looking mass on a length of telephone stretched between the farmhouse and the harness-room. The parents would coax them into trying their wings, but if one strayed from the flock the old bird would anxiously convey him back again. At last the whole crowd found a convenient stone ledge under the eaves of the farmhouse, and here they spent their days sunning themselves and twittering joyously. The parent birds fed them for three weeks, and every night escorted them back to the rafter in the harness-room. They made a pretty picture sitting in a row on the rafter, and one regretted that a camera was forbidden at the front. I should have dearly loved to snap the row of white-throated heads peeping down at us. The Martins seemed to disperse as soon as they were old enough to leave the nests, but these Swallows kept together for some weeks.

Our battery was continually moving about, coming and going between various places, and at one of our stopping-places a pair of Swallows calmly appropriated the rack on which we hung our jackets. Needless to say, we resigned the rack to them and hung our uniforms upon a hastily improvised rack consisting of a board with some large nails driven into it. Unfortunately, we were ordered off on our travels before the nest was completed, and never knew how the birds fared in their home-making. The young birds had flown before we returned.

Swallows and House Martins are the most amiable of birds, and live together in harmony. The youngsters of both keep together and form flocks, which are very conservative in their habits. Twenty young Swallows and House Martins would perch in a half-dead plum tree in an old deserted orchard and twitter and preen themselves joyously. Every fine day they came, and enjoyed themselves happily; but when it was very wet they deserted the plum tree and spent their time hawking and hunting under a Noah's Ark row of limes that bordered the river.

They were particularly fond of darting to and fro under and over the horses' lines situated beneath the trees. One terribly wet day in August, 1915, I noticed this particularly. Evidently they were collecting for migration, for there were hundreds flying about

the old church and ruined houses. Towards nightfall the rain came down in torrents, and the horses turned their backs to the storm as usual and hung down their heads. The House Martins and Swallows flew backwards and forwards, round and round, now over, now under the horses, then out over the river and back again, sometimes in the trees, but generally skimming just over the horses' backs. It resembled nothing so much as a swarm of huge bees buzzing about in swarming time in an old-fashioned cottage garden. September 4th was another day when I noticed an even larger number of Swallows and House Martins. It was equally wet, and the birds were just as busy, but in addition they were hanging thick as beads on the telephone wires along the communication trenches. I did not see the final act of the migration, for as usual we were moved on, and our next position did not happen to be near a river, which, I think, is always the Swallows' gathering place when collecting for their flight.

The Swifts appear to have a mortal antipathy to both Swallows and House Martins. At one of our positions we saw nothing but Swifts. They built in the ruins of a tall factory and other tall structures more or less ruined, and in the evening their weird screams sounded strangely appropriate when accompanied by the moan of a shell. The House Martins had built some nests under the eaves of a ruined house, and were enjoying their simple lives when the Swifts arrived. The latter gave them no peace. Morning, noon, and night they harried the unfortunate Martins, whirling, circling, and shrieking fiendishly close to their nests. Eventually the little Martins deserted their nests and departed for another place where Swifts were fewer, and their lives could be lived free from sudden wild alarms and screeching enemies.

The next gun position we took up had no Swifts, consequently the Swallows and Martins were very numerous; yet on the evening of August 26th, just as it grew dusk, I saw thousands of Swifts going over, evidently migrating. They were flying leisurely, as if taking their time about it, and not in the least disturbed by the sound of battle all around and below them. I could not help wondering whether they had come from England; if so, they must have occupied some days in travelling the distance, as the Swifts

generally leave Westmorland punctually on August 12th or 13th. There is something so sinister about the Swift, with his weird, ear-piercing cry, his everlasting swooping, whirling and hawking, that he has never appealed to me. His very blackness seems to suit his character of eternal restlessness, and he well deserves his North Country name of "devilling." There is nothing friendly about his nature, and as he and his companions flew over our lines I did not regret his departure, but turned to watch seven Swallows and Martins hurriedly catching a supper of gnats before they went to their perches.

Living close to the heart of nature—although a torn and battle-scarred heart—one finds that a lot of preconceived ideas about the wild creatures have to go. Very few birds go to bed until they are forced to by the waning light. The Swallows and Martins feed until it is too dark to see. The Plover fly long after dark, while on vividly moonlight nights the birds are very restless and are always waking. Gulls in particular are always moving, so are many kinds of wildfowl.

The idea that gun-fire would chase away the birds has been quite exploded, and the pathetic story of the Swallows and Martins wheeling around the ruins of their last year's home, tweeting miserably and then departing from the battle area of ruined towns and villages is quite untrue. Personally, I think the Swallows and Martins prefer the ruins. The vast quantity of insects which the life on the battlefield encourages provides them with plenty of food and accounts for the fact that Swallows and Martins are far more plentiful than they were during pre-war days.

Many districts in England are said to have fewer Swallows and Martins this year than ever before,* so probably the home-coming birds, finding a good supply of food on the front, lingered somewhere in France and Belgium instead of continuing their journey across the Channel. During one of the battles on the Somme the Germans shelled a small wood. One shell struck the trunk of a tree in which a large number of Martins and Swallows were perching. The tree slowly bowed, and the birds went up with the cloud of smoke as

* [This was not the case at Brinsop (Herefordshire), where the House-Martins had increased.—ED.]

it fell. It was only when the birds scattered that one realised that they were not bits of shrapnel, yet, after flying about for a few minutes, they settled down on another tree, preened their plumage and twittered as if nothing unusual had happened. No doubt, having been hatched and reared amid the surroundings of battle, they would think it strange if the incessant clash and clang were silent, and the country once more assumed its ancient aspect of peace and calm. Certainly they would miss the vast quantities of insects which the battle has attracted, and which must be an ever abiding joy to the insect-eating birds.

H. THOBURN-CLARKE.

OUR BRITISH SWALLOWS.

By Dr. ARTHUR G. BUTLER.

Although one Swallow does not make a summer, there can be no lover of nature who does not hail with delight the first appearance of these graceful birds on our shores. The first to arrive, either at the end of March or beginning of April, is the Sand-Martin, the smallest and least brightly coloured of the three; the Chimney-Swallow follows almost immediately, and then the House-Martin. [I saw Swifts last year before the House Martins, on the 27th of April, but this date was an early one.—ED.] Even in our uncertain climate we then begin to hope that the winter of our discontent is really passing away.

Undoubtedly the most gracefully formed and beautifully coloured species is the Chimney-Swallow (*Hirundo rustica*); it is also by far the best songster, although it is probable that many of our members have never heard its song, but have supposed it to be represented by the calls with which Swallows greet one another on the wing. In my experience, the Swallow only sings when roosting, either on telegraph-wires or the cross-beams of an open building, and, as I have stated elsewhere, its song is, in my opinion, far more melodious than that of our Linnet.

I have never heard songs worthy to be so called from either of the Martins; they twitter when on the wing indeed, and possibly

they may be capable of something more, though I have not been lucky enough to hear it, nor have I met with any record of such a thing, and examples which I reared from the nest never made the least attempt to sing.* Now, it has often been incorrectly asserted that brightly-coloured birds are not gifted with song, but here we have one of many proofs to the contrary; perhaps the most striking one, however, is that of the gorgeously-coloured King Bird of Paradise, of which Sir William Ingram writes ('Ibis,' 1907, p. 227): "Now he bursts out into his beautiful melodious warbling song, so enchanting to hear, but so difficult to describe."

Often repeated misstatements are not readily accepted as such, though their fallacy may be frequently pointed out; it is just as absurd to take it for granted, because the Nightingale is a prince of songsters and of modest colouring, that only dull-coloured birds are similarly gifted, as to assume that only the least attractive flowers have sweet scents; and is as foolish as the frequently uttered assertion that there are no singing birds in Australia. Let those who make this statement repeat that to their ornithological cousin the Lyre-bird.

Well, all this has taken us away from the Swallows, but it may possibly have its use in opening blind eyes and deaf ears; listen to the Blackbird and compare its splendid song with the somewhat tiresome though cheerful repetitions of the far less showy Song-Thrush; just ask yourself whether he is not in all respects, both of colour and form, a far more beautiful bird, as well as an infinitely superior performer; but one could multiply instances of brightly coloured musicians to almost any extent among foreign birds.

Swallows love warmth, and therefore, like sensible creatures, they leave us at the approach of winter. In exceptionally warm winters they may sometimes be seen quite late in the year, but it may be that only a late brood thus ventures. As a rule, the end of September or October sees their departure to a more genial climate; I will revert to this point later on. Hand-reared birds delight to nestle down in one's hand, and do not object to being stroked. They are affectionate, and would make ideal pets if one could assure

* [House-Martins have a distinct song, but not so melodious or so prolonged as the Swallow's.—ED.]

them plenty of exercise and small living insect-food ; but a Swallow in a cage is to me a pitiable object, and a bird of this kind fed upon soft food gorges itself to repletion and soon dies.

It has been said, and even by good ornithologists, that these birds cannot walk on account of the shortness of their legs, and that they cannot rise from the ground because of the length of their wings. I used to start my House-Martins running races across the floor of a room and they travelled at a surprising speed, sometimes using their wings in leaps. On a perfectly level, smooth surface Swallows undoubtedly find themselves in difficulties as regards flight, but a sloping surface or an inequality of a very few inches provides a sufficient take off from which they can rise in the air. If this were not so the Chimney-Swallows and House-Martins which I have observed obtaining mud for their nests round country ponds would indeed have been in an unhappy predicament.

I have often wondered why the House-Martin does not follow the excellent example of the Chimney-Swallow and mix dry grass or fibre with the mud, and thus strengthen the walls of its nest. It is quite easy to secure perfect nests of the Chimney-Swallow for a collection. They will stand a lot of knocking about without injury ; but with the greatest care I never could get a House-Martin's nest entire ; it fell to pieces even though carefully supported and separated from the wall by the use of a long sharp knife. The specimens for the exhibition case in the Natural History Museum were, I believe, thoroughly soaked with size and allowed to harden before removal.

So far as comfort is concerned, the Chimney-Swallow and House-Martin seem to provide for it in their nests ; but the Sand-Martin, although it may ensure greater warmth by burrowing far into a bank, has to submit to the irritation caused by numerous parasites, many of the nests being alive with fleas and ticks ; the actual nest of this bird also is flimsy in the extreme, and must need constant rearrangement to retain its character. Nevertheless, liable as it is to be blown away if exposed to the air, a perfect Sand-Martin's nest, with its cup of white feathers in a loose base of bents or rootlets, is a beautiful object ; but perfect nests are only to be obtained from long burrows.

Swallows are not nervous birds ; even the Sand-Martin, though it does not make its home amongst human beings, not infrequently chooses a railway bank as the site for its burrows, where it must be constantly shaken and half-deafened by the passage to and fro of trains. On the other hand, the Swallow and House-Martin seem to delight in the close companionship of mankind, and thus endear themselves to all lovers of birds. Whittaker, in his '*Birds of Tunisia*,' vol. i, p. 183, observes : " In some of the Tunisian villages I have seen Swallows nesting, and evidently quite at home, in the smallest and most crowded houses, circling round and round the interior of the rooms in their chase after flies, and darting in and out through the open doorways as unconcernedly as possible. I have myself slept in one of these rooms, with a Swallow's nest over the head of my bed, my first thought on waking at daybreak being to throw open the door, the only aperture the room had, in order to release the owners of the nest."

Swallows are faithful to their mates until separated by death, and they appear to nidificate year after year in the same localities, even utilising the same nest if it is in good condition. I have known the same nest of a Chimney-Swallow to be used two or three years in succession, and presumably by the same birds, since it has been clearly proved by marking pairs that they have returned year after year to the same breeding-place.

The emigration of these charming visitors from our islands begins in August, and, according to Dr. Ticehurst ('*Birds of Kent*,' p. 132), " it is not at all unusual for stragglers to be observed migrating in small parties as late as the 20th of November, and I have five or six records of single birds being seen in the county as late as the first week in December, the latest being December the 11th at Walmer."

The speed of these birds upon the wing is considerable, and they appear to fly without effort. Of course, the velocity of their flight is considerably less than that of the Common Swift, and in no respect comparable with that of the Alpine Swift, which passes one like a bullet from a rifle ; indeed, Jerdon, in his '*Birds of India*,' says of it : " I saw, on several occasions, large flocks of them flying eastward towards the sea from the rocky hills near Madura about

sunset. On another occasion I saw, at mid-day, an enormous flock of them flying eastward from the same range, a little south of Madura; these, however, were probably merely taking their ordinary rounds of a few hundred miles, but the others flying seaward at sunset—where were they bound for?" Well, Swifts have nothing in common with Swallows excepting similarity in appearance, flight, and manner of feeding. I noted recently that an aviator had chased a Swallow successfully until the unlucky bird was killed by striking against one of the stays of his machine; therefore it is probable that some aeroplanes can attain to a greater speed than Swallows.

REFERENCE LIST OF COLOURED PLATES OF THE PARROTS.

By DR. E. HOPKINSON.

A complete list of coloured plates of any group of birds would be a most useful compilation, and that which follows is meant as an essay towards this goal as far as the Parrots are concerned. It contains all the references of plates to these birds which I have come across, but of course is by no means a complete list; for instance, I know of no plates of such birds as the Tovi Parrakeet, the Black-headed Caique, or any of the Eclecti,* all comparatively well-known species, which, I feel sure, must have been illustrated somewhere. I, however, put it forward, incomplete as it is, in the hope that readers who are able or who have the opportunity will help to fill the gaps and correct the errors by writing to me, or better, to the Magazine, as I am still an annual migrant between West Africa and Europe, so that communication is sometimes uncertain and always delayed. With such help I may hope that one day a really complete and up-to-date list will be forthcoming.

It will be noticed that no reference is made to the beautiful plates in Matthew's 'Birds of Australia,' but this (and other recent books) I have not yet had the opportunity of seeing. (Here is a big gap which can be surely filled at once.—E. H.)

* [A good coloured plate of the New Guinea Eclectus (♂ & ♀) is figured in Greene's 'Parrots in Captivity,' vol. iii.—Ed.]

I must also point out that, although each entry refers to a coloured illustration, it does not always mean "coloured plate" in the best sense. One cannot expect, in the coloured steel engravings of the earlier works or in the chromos and coloured prints of popular books, the excellence and life-like accuracy of sumptuous monographs or other more modern books. However, each illustration referred to is (as far as I know), within its limits, a good representation of its subject.

The abbreviations are, in most cases, obvious, but the following need perhaps explanation :

The sign /. means "*teste*," "on the authority of."

B. and C. Brabourne and Chubb's 'List of the Birds of South America' (1912).

SS. Seth Smith's 'Parrakeets' (1903).

Cass. Cassell's 'Canaries and Cage-Birds' (1880). 'Foreign Birds,' by August F. Wiener.

Russ. The Parrot volume (iii) of his 'Stubenvögel' (1881). NL., xviii. The Parrot volume of Jardine's 'Naturalist's Library' (1843). By P. J. Selby.

Salvad. Salvadori's "Notes on the Parrots," 'This' (1905).

Wyt. P. Wytsman's 'Genera Avium,' a work (in English) by various authorities published in Brussels, which has been appearing in parts since 1905, but has ceased to appear since (and doubtless owing to) the war.

A.M. (or Av. Mag.) and B.N., needless to say, = the Avicultural Magazine and Bird Notes.'

[Dr. Hopkinson has compiled this reference list of the coloured plates of the Parrots as a supplement to his English names of the family, to be read in conjunction with that list.—Ed.]

NESTORIDÆ.

Nestor notabilis, the KEA.

Gld. B. Aust., Supplement, pl.

Wyt., pt. 4, pl. (head).

N. meridionalis, the KAKA.

Buller, B. N. Z., pl.

NL., xviii, 141, pl. 12.

Wyt., pt. 4, pl. (head).

Rowl. Orn. Misc., 1, p. 29, pl. (white variety).

N. septentrionalis, NORTHERN NESTOR.

Wyt., pt. 4, pl., fig. 1.

N. esslingi, ESSLING'S PARROT.

Gld. B. Aust., Supplement, pl.

N. productus, PHILIP ISLAND PARROT. (Extinct).

Gld. B. Aust., v, pl. 6.

Wyt., pt. 4, pl. (head).

N. norfolcensis, NORFOLK ISLAND PARROT. (Extinct.)

Forbes and Robinson, Bull. Liverp. Mus., p. 5, pl. 1 (1897). /MH.

LORIIDÆ.

Chalcopsittacus ater, BLACK LORY.

Mivart, Mon. Loriidæ, pl. 1, fig. 1. /Salvadori.

C. bernsteini, BERNSTEIN'S BLACK LORY.

Mivart, t. c., pl. 1, fig. 2. /Salvadori.

C. insignis, RED-QUILLED LORY.

Mivart, t. c., pl. 2. (Not very good. /Salvadori.)

Wyt., pt. 11, pl. 1 (head).

C. duyvenbodei.

Mivart, t. c., pl. 3.

Wyt., pt. 11, pl. 1 (head).

C. scintillatus, RED-FRONTED LORY.

Mivart, t. c., pl. 4, figs. 1 and 3.

Wyt., pt. 11, pl. 1 (head).

C. chloropterus, GREEN-STREAKED LORY.

Mivart, t. c., pl. 4, fig. 3. /Salvadori.

Eos cyanogenys, BLUE-CHEEKED LORY.

Mivart, Mon. Loriidæ, pl. 5.

Bird Notes, viii, pp. 175, 207, pl.

Wyt., pt. 11, pl. 1 (head).

E. reticulata, BLUE-STREAKED LORY.

Mivart, t. c., pl. 6.

Cass., p. 443, pl.

Wyt., pt. 11, pl. 2.

E. histrio, BLUE-TAILED LORY.

Mivart, t. c., pl. 7, figs. 1 and 3.

Rowley, Orn. Misc., iii, pl., p. 123 (hen).

Wyt., pt. 11, pl. 1.

E. talautensis, TALAUT LORY.

Mivart, t. c., pl. 21A.

E. challengerii, THE "CHALLENGER" LORY.

Mivart, t. c., pl. 7, fig. 2.

E. cardinalis, CARDINAL LORY.Mivart, *t. c.*, pl. 8.*E. rubra*, RED LORY.Mivart, *t. c.*, pl. 9.*E. semilarvata*, BLUE-CHEEKED LORY.Mivart, *t. c.*, pl. 10.

Wyt., pt. 11, pl. 1 (head).

E. wallacei, WALLACE'S LORY.Mivart, *t. c.*, pl. 11.

Wyt., pt. 11, pl. 2 (head).

E. variegata, VIOLET-NECKED LORY.Mivart, *t. c.*, pl. 13.

Wyt., pt. 11, pl. 2 (head).

E. rubiginosa, CHERRY-RED LORY.Mivart, *t. c.*, pl. 14.

Wyt., pt. 11, pl. 1 (head).

E. fuscata, WHITISH-RUMPED LORY.Mivart, *t. c.*, pl. 15.*Lorius hypnochrourus*, LOUISIADE LORY.Mivart, *t. c.*, pl. 16.*L. lory*, THREE-COLOURED LORY.Mivart, *t. c.*, pl. 17, fig. 1.*L. erythrothorax*, LORY OF RUBIE.Mivart, *t. c.*, pl. 18, fig. 2.*L. jobiensis*, JOBIE LORY.Mivart, *t. c.*, pl. 18, fig. 1.

Wyt., pt. 11, pl. 3.

L. salvadorii.Mivart, *t. c.*, pl. 19.

Wyt., pt. 11, pl. 2 (head).

L. cyanauchen, BLUE-NAPE LORY.Mivart, *t. c.*, pl. 20.*L. domicella*, PURPLE-CAPPED LORY.Mivart, *t. c.*, pl. 21.*L. chlorocercus*, GREEN-TAILED LORY.Mivart, *t. c.*, pl. 22.

Wyt., pt. 11, pl. 2 (head).

L. tibialis, BLUE-THIGHED LORY.Mivart, *t. c.*, pl. 23.

Wyt., pt. 11, pl. 4.

L. garrulus, CHATTERING LORY.Mivart, *t. c.*, pl. 24, fig. 1.

L. flavopalliatus, YELLOW-BACKED LORY.

Mivart, *t. c.*, pl. 24, fig. 2.

Wyt., pt. 11, pl. 2 (head).

Calliptilus solitarius, SOLITARY LORY.

Mivart, *t. c.*, pl. 25.

Rowley, Orn. Misc., ii, pl. 38.

Ibis, 1912, p. 293, pl. (cock and hen).

Wyt., pt. 11, pl. 3 (head).

Vinia australis, SAMOAN LORY.

Mivart, *t. c.*, pl. 26, fig. 1.

V. kuhli, KUHLE'S LORY.

Mivart, *t. c.*, pl. 26, fig. 2.

NL., xviii, pl., p. 184.

Wyt., pt. 11, pl. 3 (head).

V. stephensii.

Ibis, 1913, iæ., pl. 9.

Coriphilus taitanus, TAHITI LORIKEET.

Mivart, *t. c.*, pl. 27, fig. 1.

Forbes and Robinson, Bull. Liverp. Mus., i, pl. 2, fig. 1, 1897. (✓HL.),
"immature" / Salvadori.

Wyt., pt. 11, pl. 3 (head).

C. ultramarinus.

Mivart, *t. c.*, pl. 27, fig. 2.

Wyt., pt. 11, pl. 3 (head).

C. cyanescens, [PURPLE LORIKEET.—ED.]

Ibis, 1907, 378, 652, pl. 8.

(To be continued.)

LONG-TAILED COMBASOU (*Hypochera ultramarina*).

By PTE. A. SILVER.

A London dealer received in 1914 among other birds a small consignment of Combasous. These were disposed of as Long-tailed Combasous (*V. hypocherina*), but of those that lived none of the males assumed other than a dark plumage, and no tail shafts appeared. From a friend I purchased later a male out of colour, and when it

again assumed full plumage I had no difficulty in assuring myself that it was an Ultramarine Finch or Combasou.

Previous to this I, with many others, had imagined we had had Ultramarine Combasous, but they were only very fine Common Combasous (*H. chalybeata*) exhibiting bluish rather than greenish sheen on their black plumage,

H. ultramarina * stands well away and quite distinct from the commoner species in having a bright coral red bill and feet, whereas the bill of the latter, as everyone knows, is silvery white. My bird assumed absolutely rich black plumage with the brightest of Prussian blue reflections; in fact, resembled a miniature Chough built on Finch lines.

When out of colour these birds are browner than Common Combasous, more distinctly streaked, and in the case of the females they were less distinctly marked on the cheek area. In size the birds are larger and longer in the body than their commoner relative. The male sang more sweetly and repeatedly than males of *H. chalybeata* that tenanted the same quarters, and flew about a great deal when at its full season. Selected examples of both species side by side make a nice contrast, and, as they resemble each other in general habit, for comparatively plain birds they are equally charming and hardy.

I noticed that my bird ate white millet in preference to any other seed, refused canary seed, and seldom touched French or so-called Indian millet. Spray millet was eaten on occasions and mealworms less so than in the case of the common Combasou. I kept the bird for about a year, exhibited it successfully on several occasions, and finally disposed of it to a lady member. I understand that it is a pretty common bird in its own country, and its range there extends from the Gold Coast to the Niger, and also to N. Tropical Africa to about 23 deg. N. lat. Of late years I have seen many hundreds of birds arrive from Senegal and neighbouring districts, but among batches of birds in the general trade I have not seen a single example of the species among the other Combasous. Unless a glut of such birds came to hand I should never miss the

* i. e. the males.

opportunity of acquiring the species when it appeared at a reasonable price, because it makes a change from the better known bird and is well worth its keep.

TWO HANGNESTS AND A TROUPIAL.

By PTE. A. SILVER.

Somewhere about the middle of 1914 a batch of New World birds were offered in London, and among this consignment I discovered a mixed lot of Hangnests. There were one or two young Bullock's, some adult and immature Wagler's, and other oddments more or less dirty, but sound in constitution, although thin.

I picked out the best Bullock's and an old male Wagler's, and on arriving home caged them separately, and treated both as per my usual manner with new arrivals.

They both tried their best to become clean and respectable, but owing to the adhesive quality of the birdlime that had originally caused their downfall their labours were in vain. This trouble, however, was soon surmounted, and they "passed the doctor" successfully within the next forty-eight hours. With regard to Bullock's Hangnest, I found it resembled in most ways *I. baltimore*, a very charming species that of late years has not been obtainable in so far as I have been concerned. I fed on a good insectivorous bird food, *plus* game meal damped with grated carrot, and gave also fruit, berries, and live food, and moulted the bird in full beauty and health the succeeding season. As a Hangnest I liked the bird as well as any, and on account of its small size found it more dainty in movement than many of its relations. Although whilst with me it remained in tip-top health, I found that banana caused it to quickly become more fat than was requisite, and so latterly, to maintain fine fettle and prevent too docile a manner, I discontinued its use. The same experience held good in the treatment of *I. baltimore*. After retaining the bird sufficiently long to know it pretty well I exhibited it on several occasions and disposed of it. Bullock's Hangnest in summer may be found in Western North America, and otherwise to South and Central Mexico.

Concerning Wagler's, I found that my bird would have been less wild had it been an immature specimen when first caged. I followed up several of the other specimens which were in olive plumage when first acquired, and they were all less mistrustful of humans than my bird. The birds mentioned, with other adult birds, moulted out wretchedly pale, and bore little resemblance to the genuine article. My own bird I, of course, allowed a proper ration of tasteless pepper fruit, and it retained its full beauty after moulting. In an aviary it makes a handsome active species, and its rich cadmium hues contrast well with the shiny black constituting the other part of its colouring. Both these birds were shy singers, but the last-mentioned species, whenever people were in sight, continually uttered a "clacking" call.

The bird was fed similarly to the Bullock's, and could eat an unlimited supply of banana; but, like all other birds, varied its consumption of this, that, or the other item according to season.

Young birds of both sexes in this species seem to be olive above and yellowish beneath, black feathers poking through in due course. It hails from Mexico and Guatemala, and I have read that it does not acquire a full plumage until the third year. I am inclined to doubt this, because the young birds of the consignment appeared to be birds of the year, and acquired to all intents and purposes full plumage after the succeeding moult.

With regard to the Troupial, it was one of three Glossy Black Troupials privately imported. A "quiscaline" bird revelling in the name of *Dives atrovioleaceus*, it proved anything but charming. I think my friend Mr. Frank Finn remarked that it was anything but "rich." True, it possessed a cat-call, and when alarmed behaved like a sitting Wryneck, but for a black bird was not a patch on a Silky Cow-bird as a cage bird. In addition to sparingly eating soft food, it partook of canary-seed and sunflower-seed, but almost on all occasions ignored fruit. Clothed in black, nothing relieved its general aspect except a pair of staring white irides, and although it could be safely described as a rare bird on the market, I should not weep if Cuba sends us no more.

REVIEWS.

A BIBLIOGRAPHY OF BRITISH ORNITHOLOGY.

MULLENS and SWANN.

[A BIBLIOGRAPHY OF BRITISH ORNITHOLOGY, from the Earliest Times to the end of 1912. By W. H. Mullens, M.A., etc., and H. Kirke Swann. Macmillan & Co., Ltd., St. Martin's Street, London, 1916.]

Four parts of this publication have been issued, each at 6s. net, and it will, when completed, be a most useful book of reference, including, as it does, the biographical accounts of the principal writers and bibliographies of their published works.

One learns many interesting facts as to the authors. Taking for instance, under "M," we find that Meyer, after whom Meyer's Parrot was named, was not of that nation which has proved itself to be the foulest fighter in the history of the civilised world, but of Dutch extraction, his father having been several times Member for North Holland, coming to England after the establishment of Louis Napoleon's Kingdom in the Low Countries, so that his son lived in England and married an Englishwoman. By one who knew him, he is described as "an artist by profession and a great naturalist." The second issue of his 'Coloured Illustrations of British Birds,' on large paper, is of the utmost rarity. In the library at Welbeck Abbey there is one of these which contains a memorandum in Meyer's handwriting.

In the biographical record of Morris [Rev. Francis Orpen] we read that he has a name and place in British ornithological history, despite the fact that the authors maintain that Morris' 'British Birds' "never occupied any very important position" among such works, and that "he accepted records and statements without discrimination, and consequently his work abounds in errors and mistakes." For all that, he must have been a hard worker.

For those who collect publications on British ornithology this work is a valuable one for reference upon the subject.

BRITISH BIRDS. THORBURN.

BRITISH BIRDS, written and illustrated by A. Thorburn, F.Z.S. With 80 Plates in colour, showing over 400 species. In four vols. Vol. IV. Price £6 6s. Longmans, Green & Co., 39, Paternoster Row, London.

Gulls, Plovers, waders, and sea-birds chiefly make up the fourth and final volume of Mr. Thorburn's beautiful work, to which we have before now drawn the attention of members. The artist excels in delineating and painting the portraits of sea and shore birds, so that one finds many charming and beautiful pictures which form a natural grouping of those birds which associate together in a wild state at certain seasons of the year, such as Terns in one plate, Dunlins and Sandpipers in another, and Gulls in another.

It is perhaps a pity that the figure of the European Crane could not have been a solitary one, as it seems somewhat out of place with a Stone-Curlew and two species of Bustards in the background.

Plates 72, 74, and 76 are especially attractive, Gulls of various species figuring in the first two, and Puffins, Razorbills, etc., in the third; but the whole of this volume is made up of good work and clever colouring.

STICK INSECTS (*Carausius morosus*).

DEAR MR. ASTLEY,

I am surprised that you could not get information at the Zoological Gardens respecting the insects that M. Delacour wrote about. 'The Field' published some time ago a note from the London Zoological Gardens stating that stick-insects had been given for food not only to the birds, but also to some insectivorous mammals, such as Marmosets, which had relished this addition to their fare.

Now, *Carausius morosus* are orthopterous insects, not beetles, and they have been the object of the careful study of one of the members of the Société d'Acclimatation, namely, the Abbé Foucher, who has bred enormous quantities (*Carausius* and *Cyphocrania*) and also leaf-insects in his insectarium. These studies have been

published in the 'Bulletin de la Société d'Acclimatation,' and have now been put into book form, with many illustrations ('Études biologiques sur quelques Orthoptères.' Paris, 1916).

Carausius was obtained by the Abbé Foucher in 1913 from Mr. Morton, of Lausanne, but only females, but they have multiplied to such an extent by parthenogenesis that he was obliged to let loose a quantity in the garden of the Catholic University, where they settled in the ivy covering the walls. And here I must signalise a most striking case of the utter futility of the theory of protective forms, etc. Sticks as the insects looked, the Blackbirds and the Sparrows were not long in finding out that they were eatable, and fell to work on them as their daily fare.

In the preface which Prof. Perrier has written for the Abbé Foucher's book he remarks that stick-insects appeared on the earth at a very remote period. *Titanophasma*, for instance, was in existence when the surface of our globe was only just clothed with vegetation of some kind, so that resemblance to sticks could not be of any protective value to the orthopterous ancestor.

Must we not, therefore, ascribe the stick form to some general influence which dominated equally plant and animal life?

I might add that the Abbé Foucher has at last obtained a male specimen by putting some females on very short rations, as has already been done in breeding butterflies from caterpillars.

Male or no male, the multiplication of *Carausius* is very great, and growth so rapid that stick-insects will no doubt afford a very timely substitute to aviculturists for the mealworms, of which so large a number were imported before the war from the farms in Germany.

Yours truly,

PIERRE AMÉDIE PICHOT.

[Mr. Brook wrote about the stick insects as food for insectivorous birds, 'Avic. Mag.,' April, 1915.]

CORRESPONDENCE.

BREEDING OF FALCATED DUCK AT KEW GARDENS (*Eunetta falcata*).

DEAR MR. ASTLEY,—You will be interested to hear that we have bred Falcated Duck this year. We have two fine drakes and one duck, possibly two. We thought they were Gadwall at first, and our surprise was considerable when the male suddenly assumed his characteristic plumage.

We have two birds (a pair) in our pens, the others are with the parents on the lake, and that is why I cannot be certain about the female birds.

Yours sincerely,

ARTHUR W. HILL.

P.S.—I bought two pairs a few years ago and had them on the pond by the Museum. Both pairs made their way to the lake and one pair flew away about one and a half years ago, not being properly pinioned. If this is worth noting in the Magazine, pray make use of it.

RHEUMATISM IN PARROT'S LEG.

DEAR MR. ASTLEY,—I note that you are asking for suggestions for treatment of your Parrot, which has spasmodic rigidity of the legs. To me this appears to be due to rheumatism, and this is very likely if you have had the bird for a long time. The condition seems analogous to the cramps in the calves of the legs, as shown in the human subject, especially violent at night. The circulatory system requires flushing through the kidneys, and I should recommend giving an extra gill or so of water every day: the bird might be induced to take this quantity by adding a little salt to the ordinary drinking water. This will induce thirst, so after it seems to have taken enough owing to repeated drinking the last portion being unsalted would allow its thirst to be quenched.

I was very delighted to note the continued excellence of the Magazine in spite of the war. I enclose two papers, which perhaps you can use. For a very long time I have wished to send you something, but have been detained. I have further papers in contemplation.

I am yours faithfully,

GRAHAM RENSRAW.



THE SPECTACLED OWL.

(*Syrnium perspicillatum*.) (Hab. Bogota.)

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FEBRUARY, 1917.

THE SPECTACLED OWL

(*Syrnium perspicillatum*).

By MISS E. F. CHAWNER.

Last July Mr. Cross sent me a fine specimen of this Owl, now not often imported to this country, though formerly (*teste* Mr. Meade-Waldo) often represented in the Zoological Gardens of London, where it was called the Downy Owl. This, I venture to say, does not well describe it, for several other species have a more downy appearance than this rather close-feathered bird.

The same authority says that it is "widely spread over Central and Northern South America, and thus is a purely tropical Owl." It has the reputation of being a tame species, which my bird fully bears out. The day after his arrival he sidled along his perch and held his head down as a parrot does when inviting a friend "to scratch a poll," and with the same object, for nothing gives him greater pleasure than to have his head scratched by hand or with a bit of stick. He is absolutely fearless, and very gentle, and has evidently been much petted. When he reached here he was in good plumage, only a few of the flight feathers rubbed and broken, but his first wash showed that he had a good deal of dirt to get rid of; he uses his bath freely, and has a curious habit, which I have not noticed in my other Owls, of dipping his face into water after feeding. His voice is gruff, something between a growl and a hoarse chuckle; combined with his oddly-marked face and big, yellow,

black-pupilled eyes the effect is rather startling, and makes one feel that his name "Bogey" is well bestowed.

The photograph gives such a good idea of his appearance that I need only say that his back is not really black, but the shade known as *tête de nègre*, and his breast and under parts are tan. He was annoyed at being made to pose when he wanted his head scratched, and would not stand up, so the photograph does not do justice to his height; he stands rather higher than the Tawny Owl, but I think he is a larger bird. His diet is the same as that of my other Owls.

So far he seems to stand our climate well, but, being a native of the tropics, he will need watching during this hard winter.

THE INFLUENCE OF GERMAN AVICULTURE.

By W. E. TESCHEMAKER.

So long a time has elapsed since I last contributed to the Magazine that it may perhaps be advisable to explain why I have accepted the Editor's invitation to write something, and, in particular, why I have selected the above subject. I have both a private and a public object. I wish to show our members that I have not forgotten them (as I hope they have not completely forgotten me), and I always set before myself the possibility of raising aviculture from the very restricted sphere of influence, which it at present occupies, to a plane of greater dignity and wider outlook.

No doubt one takes a risk or two in writing of German aviculture at a time when we are at war with Germany, but the psychological moment must not be lost. The old order of things is passing and there is a promise—or at least a possibility—of a new world and new ideals; so we will take the risk and hope for the best.

AVICULTURE AND POLITICS.

In pursuance of the above object, I will commence with a postulate and a protest. My postulate is that aviculture is based

on certain instincts and sympathies, which are common to the aviculturists of all nations, and is therefore above and apart from all considerations of race or nationality. I claim that we should regard the aviculturists of all nations in war time as being fellow-sufferers united by a common misfortune; for, however excellent the objects of any war may be, it is bound to be destructive of the best interests of aviculture.

My protest is against those (if any) who would try to thrust this terrible war into the quiet realms of aviculture. We should not only regard them, I think, as disturbers of the peace, but as seeking to destroy the cosmopolitan character of aviculture and its potential function as a link to draw all nations more closely together after the war. One result of this conflict, which we can all foresee, will be racial animosities more bitter and more enduring than that inspired in the French by the loss of Alsace-Lorraine. There will be no real peace in the world until those animosities have been extinguished by effluxion of time and by the intercourse of nations.

CONCERNING PATRIOTISM.

We have heard a great deal during the last decade in this country of that type of patriotism which has produced a certain national self-complacency, which, when put to the test in the keen struggle for existence, has not been always justified by results. Another form of patriotism, less popular but, we think, more profitable, is to point out what other nations are doing and to compare it with that which we are doing, and to thus attempt to discover our relatively strong and relatively weak points. It is this latter method which we shall pursue to-day.

EARLY GERMAN AVICULTURE.

To understand the true inwardness of German aviculture we must hark back to its beginnings, and here we run up against a difficulty, namely that the beginnings of aviculture in all countries have left no written record. We have to fall back upon the beginnings of avicultural literature and form inferences by comparing the written records of the same period of different nations.

Avicultural literature, properly so called, has been preceded in all European countries by certain curious old works on sport and natural history, many of which are of respectable antiquity; as, for instance, in England, Leonard Mascall's work on Fowling, 1590, 'A Jewell for Gentry' (Hawking, Fowling, Fishing), 1614; 'Hunger's Prevention' (Fowling), by Gervase Markham, 1655; in France, 'Histoire de la Nature des Oyseaux,' by Du Mans, 1555; 'Les Ruses Innocentes' (trapping migratory and non-migratory birds, also quadrupeds), 1610; in Italy, 'L'Uccellatura A Vischio di Pietro Angelio Bargeo' (a poem on Fowling), 1568; "Il Canto de Gl'Avgellia' (Fowling: interesting as being the foundation of Olin's work), 1601; 'Olin's Natural History,' 1622. (The above titles have been much abbreviated.)

A perusal of these quaint old works will convince the student that in the sixteenth century the chief interest manifested in European birds was a gastronomic one.

Here we find the Germans well to the fore, in Lark-catching with their immense flight-nets, and particularly in Thrush-catching with "Dönnen" (hanging snares) and "Schlingen" (horse-hair nooses). Records are still extant of the number of birds snared in one small district in the Rhine provinces between the years 1611 and 1632, and include 7409 Redwings, 5254 Thrushes, 744 Redbreasts, 52 Redstarts, 54 Yellowhammers, 155 Chaffinches, 2674 Skylarks, 1059 Tits, 14 Waxwings, 51 Jays, etc.

Heresbachius, writing in 1537, tells us (translation) that Thrushes "are chiefly caught in Germany in the winter. They are cooked whole, for the insides are eaten also. They have the intestines filled with the berries of the Juniper." William Turner in his 'New Herbal,' 1551, also tells us that the juniper "groweth in Germany in many places in greate plentye but in no place in greater than a lytle from Bon, where as at the time of year the feldefares fede only of Junipers berries, the people eate the feldefares undrawn with guttes and all because they are full of the berries of Juniper."

I am aware that this is not a nice introduction to German aviculture, but, for those who would understand the subject, it is a necessary one.

TWO OLD GERMAN BIRD-BOOKS.

One hundred and fifty years pass, and the first work really devoted to German aviculture, of which the writer can find any record, appears upon the scene. It has a dreadfully long title (*N.B.*: this appears to be a marked and constant characteristic of all early bird-books!), which we will spare the reader, simply referring to it as the 'Grundliche Anweisung,' and translating the title for his benefit. I ask the reader, however, to particularly notice the ideals which the German aviculturist of this early period set before himself, as deduced from the title. "Practical directions on catching and domesticating all sorts of birds, on distinguishing them by their sex and other characteristics, on making them tame, and managing them, on recognising their attractive qualities, on *teaching them songs other than their own*, and on *accustoming them to fly in and out of the house*." Authors anonymous; date 1754.

This is a very interesting old work in several ways. We will particularly call attention to the art and practice of teaching birds other songs than those they have inherited from their parents—an art which the Germans have since most carefully cultivated and most successfully developed. It is also interesting as being the foundation of Bechstein's later work—indeed Bechstein himself brought out a later edition of the 'Anweisung' in 1797.

Forty-one years pass, and Johann Matthaus Bechstein, M.D., presents to German aviculturists his celebrated 'Naturgeschichte der Stubenvögel,' 1795, so well known in this country through the medium of a translation. This translation, however, has greatly detracted from the real value of the work. Even the title ('Natural History of Cage-birds') is quite incorrect. We lay special emphasis on the fact that *Stubenvögel* should be translated "house-birds" (literally "bird-room birds"), and that the author adds the definition "those birds which one can keep in the bird-room," because we have here the first complete and detailed description of the system of keeping birds flying loose in a room heated by a closed stove, which was afterwards so successfully developed by Dr. Russ and others, and has become so distinctive of German avicultural methods.

GERMAN AVICULTURE IN THE 17TH CENTURY.

Although the writer has not been able to come across an earlier German work on this subject than the one published in 1754, the reader must not jump to the conclusion that German aviculture began somewhere about this date. I have elsewhere made mention of a much earlier English work. When I was offered this little book one day in a secondhand book-shop in Charing Cross Road, for the modest sum of 10s., I literally grabbed it. Its value to a collector is more than the latter sum, and, to an aviculturist, it is simply beyond price. Its title is (as usual!) lengthy: 'The Bird-Fancyer's Delight, or Choice Observations and Directions concerning the Taking, Feeding, Breeding, Curing and Teaching all sorts of Singing Birds. Also, how to take birds with lime-twigs and to make water bird-lime. With the Maladies and Distempers incident to Singing Birds, likewise an Infallible Rule to know the cock from the hen; and many other observations relating thereto. *The like not extant.* London: printed in the year 1711.' (Sixty-eight words! but the title of Brehm's 'Vögel-fang' contains no less than 112 words!)

It consists for the most part of a series of essays on the treatment of certain insectivorous song-birds, that on the Nightingale being probably the most interesting and most detailed ever written in any language.

Naturally, as an English aviculturist, I was very delighted to find that at this early date aviculture in this country was so well advanced, but, when I came in due course to the article on the Canary, in the portion of the book devoted to "Hard-beak'd Birds," I experienced a dreadful shock. Our countrymen of that date, I read, could not "distinguish a Canary from one of our common Green-birds" (Green-finches). But worse was to come. Whence came the best Canaries? "The birds brought out of Germany far excel in hansomness and songs; the German birds have many fine jerks and notes of the Nightingals, which in its place I shall declare how they came to have." The author goes on to describe a German aviary, and German methods of breeding and training the young birds to sing Nightingale and Pipit tours, and he concludes with this overwhelming sentence: "This man also did truly affirm that they"

(Canaries) "never came to any perfection until they" (the Germans) "came to have birds of their own breeding in their own country and then, being seasoned to the country, they bred in abundance, furnishing all Poland, Germany and France; and of late years England also where they vend as many as in any place in the world."

Some of us had imagined that the German Roller was introduced by a certain chemist, named Seifert, some thirty years since. Two hundred years before this date the Germans were supplying trained Rollers to half Europe!!

THE PARTING OF THE WAYS.

Let us note then, with pardonable pride, that (so far as the writer's researches extend) we were able to produce in this country an excellent and detailed work on aviculture half a century before the Germans, and the fact that English aviculturists of that period could keep the Wren in captivity and make the Robin whistle tunes *and talk*, as related in the 'Fancyer's Delight,' shows that they were no beginners but masters of their art. But let us also note that even at this early date German and English aviculture had begun to follow different lines of development. The Germans had put before themselves a *definite idea*. They had recognised the possibilities of the Canary as a singing bird; they had acclimatised it, taught it portions of the songs of the Nightingale and Titlark, and had succeeded in breeding it on so large a scale that they could supply trained song-birds to half Europe. Two centuries have passed and the Germans are still supplying trained song-birds to Europe.*

One naturally asks oneself why, if English aviculturists had all the qualifications for success, they have not produced more tangible results? The answer is probably two-fold. In the first place, aviculture has been pursued in this country in an aimless, amateurish manner, without any *definite object*. Another, and equally unfortunate, characteristic of English aviculture is pointed out by the author of the 'Fancyer's Delight' in a very suggestive passage: "This is the Misery of most people, they *breed so many together that one spoils another*." How many aviculturists one could

* [Is not this because the Germans aim to make money with their Canaries, whilst the English have kept birds for their personal pleasure?—Ed.]

name who have succumbed to the lure of the "mixed series," have crammed their aviaries to the limit of repletion with a heterogeneous collection of indigenous and foreign birds, and have never produced any definite or interesting results whatever. The "misery" (pity) of it!

EIGHTEENTH CENTURY AVICULTURE: THE BIRD-ROOM.

In the next century we note the growth of another distinctively German idea—the bird-room. Probably this was in its inception rather a matter of chance than of design, and may be attributed to the greater suitability of the German closed stove, as compared with the English open fireplace, for avicultural purposes. These stoves are of large dimensions and made of some kind of glazed earthenware. Standing well away from the wall of the room, they diffuse an even heat and need only to be stoked at long intervals; also all fumes are carried away by a stove-pipe. This appears to be one of the very few articles, "made in Germany," which are not normally imported into this country. I have only seen one here, and that belonged to a German family.

Though greatly inferior to the modern "Tortoise" stove, connected to radiators (I have the smallest size of "Tortoise" in my house, yet it sufficiently heats a billiard-room, a fair-sized conservatory, a large bed-room, and a bird-room), it is obviously handy for avicultural purposes.

(Since writing the above, an acquaintance, who has resided in Germany, has sent me the following details: "The German stoves are generally made of iron with a large superstructure of tiles—generally white; the iron heats the tiles wonderfully, so that the latter are often quite warm in the morning and make the room beautifully warm in all parts—so different from an English room, where one is only warm close to the fireplace. The latest type has a regulator and burns all night without any trouble. They burn coals or peat, not wood. They would be splendid for birds, being so clean, safe, and easy to manage, but they are not elegant, except those in very large houses, which have ornamental tiles.")

It is fairly obvious that the seventeenth century English bird-room could not easily have been systematically heated, and therefore its owner would have had no inducement to spend much time with

his birds in the winter months. The only description in the 'Fancier's Delight' of a bird-room of the German type, in which the birds are always flying loose and are never caged, is of a combined room and "outlet" (outdoor flight) and is recommended for breeding Canaries, but is admittedly borrowed from a German design.

Even to-day there is nearly as much difficulty in heating efficiently a bird-room in this country. I regret to say that a visit to two of our members revealed the fact that, in this twentieth century, they were using nothing more satisfactory than the common and smoky paraffin lamp. I was on the point of suggesting to them the vast superiority of the smokeless blue-flame stove of the "Beatrice" type, but on reflection I felt sure that it would be wasted effort.

But, though the *idea* of a comfortably heated room, in which the aviculturist could sit at all seasons and in all weathers and watch his birds flying round him, is an attractive one, I have not found it a success in actual use. Although Bechstein claims that "all birds are less at ease in a cage than when at liberty in a room," my experience is the exact converse. During a period of nearly two years I tried many varieties of English and foreign birds under these conditions, and I found that one and all would spring into the air the moment one entered the room and fly wildly round and round. Any sitting birds would throw themselves off their nests, scattering the eggs on the floor, and Larks would beat against the ceiling. In the very dry atmosphere eggs did not hatch well, and young birds never seemed to prosper. I recollect that I failed under these conditions with such easy species as the Goldfinch and Tree-sparrow. There were other objections. The walls became dirty. No chair could be left in the room even for a few minutes without being soiled. Sand adhered to one's boots and, despite the vigorous use of a doormat, was carried about the house. How the Germans could breed such shy species as the Blue Grosbeak under these conditions has always been a mystery to me. I give them full credit for the requisite skill and patience. I have heard of some successful English flying-rooms. In one a soft-bill fancier kept twenty-six (!) Nightingales and claimed that there was "always one in song," but never more than one, for, in such a confined space, the master-singer would brook no rival.

I subsequently built a small outdoor bird-room heated by water-pipes and with all sides of glass, which was much more successful. Quails, Quail-Finches, and Lark-Finches were quite at home in it, and Whitethroats, Garden-Warblers, and Orphean Warblers sang well in it in the winter. I have now rebuilt this little house, converting half of it into an aquarium and the other half into flights for Softbills. I daresay that it will be something else before long, for the writer is an incorrigible experimentalist.

My indoor bird-room, however, after many transformations, is in a final and finished state. It is now a song-bird-room. A large (6 × 6 ft.) window has been fitted, and a hot-water radiator; a glass sky-light (for better ventilation) has been inserted in the ceiling. It contains one large flight, three small flights, and several large cages. I have had as many as four Nightingales singing at one time in it, and last spring with two Nightingales, two Orange Ground-Thrushes, a Woodlark and several Linnets, I probably had as wonderful bird-music as one is at all likely to hear in this very imperfect world.

THE BECHSTEIN ERA.

As the eighteenth century drew to its close, we note a great increase of popularity in aviculture in Germany. Dr. Bechstein's book—probably the first work on the subject in which there was order and method and a scientific point of view—had a great reception and quickly ran through three editions. The Germans began to show great skill in handling insectivorous birds; Bechstein tells us that he knew several amateurs who *always* had one or two Wrens caged or flying in the bird-room. Sixty-six species of foreign birds are described in his work, and he apologises for the non-inclusion of *many* other foreign species, which were to be seen in maritime towns in Germany, on the ground that he had had no opportunity of personally studying them.

But let us note that they did not overdo it. The worthy Doctor informs us that, though he had a "passion" for birds, he kept only thirty. We could all mention aviculturists who have not been satisfied with less than three hundred, and some have kept a thousand!

(To be continued.)

ARE BIRDS EASILY DECEIVED?

By ARTHUR G. BUTLER, Ph.D.

I confess that I was puzzled as to the character of the stick-insects which Mr. Brook mentioned as recommended by Mr. Seth-Smith for bird-food; I even wondered at the time whether certain stick-like caterpillars might not be intended: it is therefore satisfactory to know that the genuine Orthopterous insects were meant, because it bears out my own contention that insects are only protected to a moderate extent by their mimetic character. It is evident that *Carausius* is not distasteful, or it would not be greedily devoured, and it seems probable that the same may be true of other stick-insects.

We must therefore conclude that where there is abundance of insect-food a bird does not take the trouble to examine a stick- or leaf-like object, in order to decide whether it is animal or vegetable. On the other hand, if an insectivorous bird has been unable to obtain much insect-food, or is hungry, it closely examines every leaf and twig, and thus speedily discovers its character, as I pointed out as long ago as December, 1889 ('Ann. Mag. Nat. Hist.', p. 472), where I recorded the fact of giving an example of the leaf-like moth (*Phlogophora meticulosa*) to a *Liothrix* on September 25th, 1887, which, after carefully examining it and probably observing its legs, tested its character with a peck and then devoured it. I ought, however, to have said that I suspended the moth in an inconspicuous corner of the cage when the bird was not looking: I did not offer it to him, or he would probably have accepted it without hesitation.

Birds have such excellent eyesight that they are not readily deceived, and anybody who has watched our Tits and Warblers carefully examining the twigs and leaves of trees and shrubs in their search for food, or our winter residents turning over the fallen leaves which carpet the earth, must be well satisfied that little can escape their vigilance. If their resemblance to twigs alone served to protect the caterpillars of certain Geometrid moths (loopers), I do not think many would escape; but, as I have pointed out elsewhere, they are so tough and rigid that a small bird is unable to shake and beat them to a pulp as he does the softer type of smooth caterpillar. The

smaller, softer, and less mimetic looping larvæ are eaten wholesale; that of *Halia vauaria* (the V-moth) is a favourite food of the Tits when they are rearing nestlings.

I should imagine that the true leaf-insects related to *Mantis*, and some other large leaf-like Orthopterous insects, would be protected almost as much by the great expanse of inedible chitinous material, which produces the foliiform aspect, as by its deceptive character, though doubtless passing birds are deceived thereby. The leaf-like butterfly (*Kallima*), of one species of which Alfred Russell Wallace many years ago exhibited a group sitting with closed wings on almost leafless twigs (at a conversazione of the Linnæan Society), was extremely convincing; but the late Mr. Pryer, of Sandakan, told me that he had only seen the Bornean species sitting on the ground. One would not see a number of scattered leaves lying edgewise on the earth, and it would require a very foolish bird to be deceived by them: we must therefore hope that they had only descended on to damp sand for a drink.

If these mimetic forms were nasty, one could understand that, after sampling them, a bird might fight shy of them; although I proved that in some cases my birds seemed to acquire a taste for insects which they at first refused; and Mr. Swynnerton has proved that insectivorous animals, both birds and beasts, will, when hungry, eat more or less nauseous insects. I have never known my birds to refuse caterpillars on account of their colour, although they naturally fight shy of bizarre types with which they are not familiar. Some years ago I had the misfortune to offend my friend Prof. Poulton by pointing out that the (rather fanciful) resemblance of the caterpillar of the lobster-moth to a spider could only be an inducement to an insectivorous bird to eat it. I was under the impression that the late H. W. Bates had suggested the resemblance, but I was soon undeceived.

Of course all aviculturists are well aware of the eagerness with which all insect-eating birds pursue spiders, tiny Waxbills seizing upon full-grown females of the common garden spider (*Epeira diademata*); while I have seen Tits go for the largest examples of the house-spider (*Tegenaria domestica*) and devour them greedily.

The idea of warning-colours seems to have been first suggested to Darwin by Wallace ('Descent of Man,' 2nd ed., p. 499) to account for the existence of brilliantly coloured caterpillars which seemed to be destitute of any other means of protection, excepting perhaps that they might be distasteful; and he stated that the skin of caterpillars was extremely tender, so that if a bird pecked one in order to sample its flavour, it would infallibly die. I don't admit either assumption. The skin of some caterpillars is comparatively tender, of others it is extremely tough, and I have known caterpillars which have been injured to develop into moths in which there was only a slight imperfection.

I believe that caterpillars striped black and yellow like wasps (as that to which Darwin called Wallace's attention) are usually nauseous, and I think they are fairly thick-skinned; certainly the insects they become are not easily killed. As a general rule I should say that distasteful butterflies and moths, such as *Parnassius*, the *Danaids* both of the Old and New Worlds, the *Acræids*, the *Zygenids*, and some of the *Arctiids* among the moths are so little affected by one hard pinch that a single attack by a bird would have no permanent effect upon them. If all nasty butterflies were coloured alike I could quite understand birds and beasts taking notice of their hues; but they are of all the colours in the rainbow; there is nothing distinctive about them.

The late Professor Packard, of the States, asserted that the hairs and spines on caterpillars protected them against the attacks of their enemies, but not only do many of the larger birds simply rub off the hairs and then devour them, but the most hairy of our British caterpillars, that of the common Tiger-moth, is more subject to attacks from ichneumon-flies than any other caterpillar known to me. Many of my birds ate the spiny caterpillars of the small tortoise-shell butterfly, some of them rubbing off the spines, but some swallowing spines and all. Birds are not so foolish as to refuse good food because it gives them a little trouble to prepare it.

When one reflects, one wonders what possible good it can do to a species if it possesses warning colours in one stage to advertise its nastiness, and in a later stage it ceases to be nasty? Birds do not say to themselves "that gooseberry-moth came from a nasty

caterpillar and still retains its warning-colours differently distributed"; they put it to the test, and some at least of them are perfectly satisfied with the flavour of the moth, although they did not care for the caterpillar. The colouring does not put them off, they are not deceived by it.

Lastly, somebody once suggested (I don't know who it was, but I hope it was not one of my old friends) that metallic colours were a protection, the inference being, I presume, that the lower animals were aware that metal was not fit for food. I don't suppose it ever entered into a bird's mind to bother about whether it was or was not, but it is certain that some birds are attracted by metal, or in fact anything that glitters, and it is equally certain that insects with metallic colouring are greedily devoured.

There are still many things in this world which hitherto have not been satisfactorily explained, and some of them will probably not be properly understood while this world lasts; but in any case don't let us credit our feathered friends with being greater fools than ourselves, or having inferior eyesight. If I can see a red-underwing moth at rest on a granite wall or a lichen-covered tree-trunk, surely I may credit a bird with even more acute eyesight.*

SHEATHBILLS.

By GRAHAM RENSHAW, M.D., F.R.S.E.

"We find in *Chionis* a connecting-link, closing the narrow gap between the Plovers and Gulls of the present day."—*Coues and Kidder*.

There are certain groups of birds which exhibit remarkable outward resemblance to other groups with which they have no real affinity. The Old World Hornbills, for instance, with their huge beaks and weird cries, recall the big-billed, noisy Toucans of America, though the two groups are poles apart. The long-winged, rapidly-flying Swifts are popularly classed with the Swallows rather than with

* [Might not a human being detect some such object which could be passed over by a bird, owing to the much higher powers of reasoning in the former, *i. e.*, of putting two and two together?—Ed.]

their nearer relations the Humming-birds. In spite of their wide gape and mottled plumage, the Frog-mouths of Australia should be ranged with the Oil-bird (*Steatornis*) rather than with the Night-jars which they superficially resemble. Again, the Sheathbills of the southern seas, though marine and predaceous, recall in external appearance the poultry and Pigeons of more northerly regions.

Sheathbills are about the size of a small fowl, and have the active habits of an Oyster-catcher. Their name is derived from the curious horny sheath situated at the base of the beak, unknown in other birds. The skin about the eyes is reddish and swollen, as if inflamed; one species, in fact, is called the "Sore-eyed Pigeon" by sailors. There are also small fleshy warts on the head, like incipient wattles, and comparable to the nodules on the head in Turkeys. The plumage is beautiful snowy white; three species are recognised—the Yellow-billed (*Chionis alba*), the Black-billed (*Chionarchus minor*), and the Crozet Island Sheathbill (*Chionarchus crozettensis*).

In the Sheathbill the aviculturist has an ideal pet. Inured to hardship almost from the egg, in its desolate island habitat, this bird bears easily the long voyage to Europe, and all three species have been kept alive in this country. Sheathbills have often been exhibited at the Zoo, no less than nine of the Yellow-billed form figuring in the collection between 1865 and 1882. They seem, indeed, to be fond of travel on their own account; for on May 1st, 1875, Mr. John Gunn, of the German barque, "Professor Koch," presented to the Regent's Park collection a Black-billed Sheathbill which had been caught at sea. This was a specially interesting gift, as the menagerie at that time already contained a Yellow-billed individual, so that the two species could be studied side by side. Still more remarkable was the occurrence of a Yellow-billed Sheathbill in Ireland in December, 1892. The bird was killed at Carlingford Lighthouse in County Down; the wings and tail were nearly perfect, yet the presence of an Antarctic bird in Ireland was so truly remarkable that its occurrence is an inexplicable mystery. Perhaps it was an escape—the lost pet of some returning sailor.

The Little Sheathbill of the Crozet Islands was long confused with the Black-billed or "lesser" species—from which it may be distinguished by its pink (not yellow) feet, and by the smaller beak.

Aviculture owes the introduction of *C. crozettensis* to Mr. Searle, of Capetown. He had a specimen in his aviary for some time, and eventually sent it as a gift to the Zoological Society; the bird was brought home by Captain Armson, who safely delivered it at the Gardens. On its death it was made into a skin, and was exhibited before the Society on November 28th, 1867; it is probably this individual which figures in the British Museum Catalogue as having been received from Captain Armson. On October 26th of the following year two more examples from the Crozets were safely unpacked at the Zoo—gifts from another resident of Cape Town, Mr. E. L. Layard. To Mr. Layard we owe our earliest knowledge of the curious, plover-like egg of the Sheathbill; for no egg of any of the species was known until he sent to Professor Newton an example which he had taken on the Crozets. Sheathbills do not appear to have hitherto bred in captivity; the study of the quaint little black nestlings is a domain untrodden and unexplored.

Bridge House,

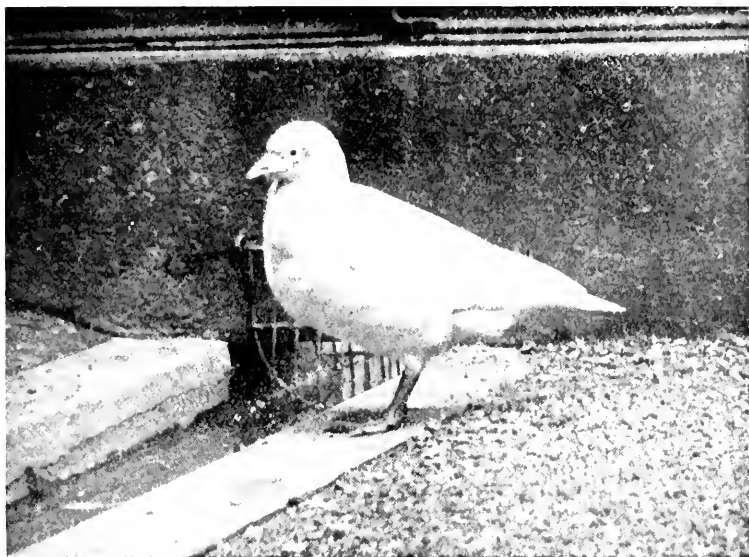
Sale, Manchester.

THE OCELLATED TURKEY.

By GRAHAM RENSHAW, M.D., F.R.S.E.

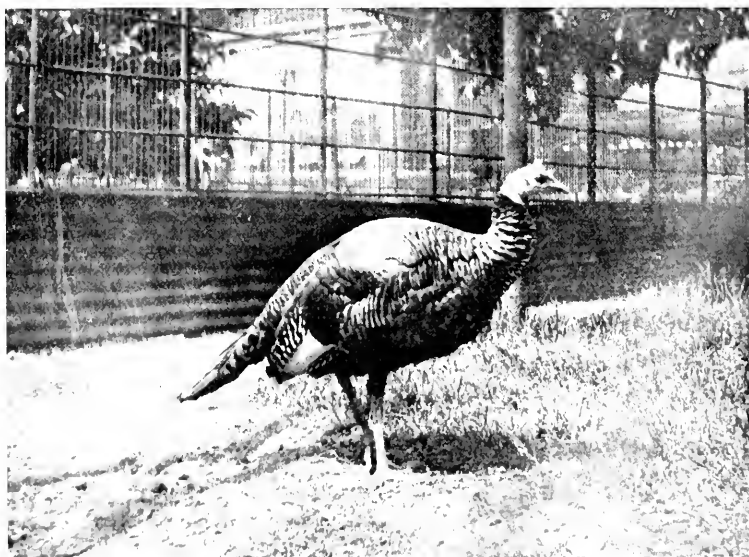
The little group of early naturalists at the beginning of the last century included in its ranks several enthusiastic collectors, and perhaps the most persevering of them was Mr. William Bullock. Until recently London possessed a tangible token of his labours in the Egyptian Hall, Piccadilly: for it was built by him to house his great museum, which contained over fifteen thousand "natural and foreign curiosities," and had taken seventeen years to amass. The cost of collecting had been £30,000, it was said; amongst the contributors were Sir Joseph Banks, Lord Dundas, Colonel Gordon, Mr. Edwards, Mr. Irby, and other well-known people. In 1820 the collection was sold by auction, and its treasures scattered far and wide.

Amongst the rarities of the Bullock Museum was a unique specimen—an Ocellated Turkey—the first ever seen in Europe,



BLACK-BILLED SHEATHBILL.

(*Chionarchus minor*.)



OCELLATED TURKEY.

“captured in the Bay of Honduras.” It was purchased for the Paris Museum, and is probably still there. Cuvier described and figured the new bird under the name of *Meleagris ocellata*; Temminck, of Leyden, figured it as Plate 112 of his ‘Planches Coloriées.’ Eleven years later this beautiful species was seen alive in London, a hen bird having been presented to the Zoo by the Earl of Ilchester.

About this time the thirteenth Earl of Derby was engaged in forming his superb zoological collection at Knowsley Hall. The Derby museum and menagerie became the largest and best in the kingdom; the menagerie occupied one hundred acres of land and seventy acres of water, and cost over £15,000 a year in upkeep. The museum contained the first Apteryx seen out of New Zealand; five hundred birds, belonging to forty-five species, were bred in the aviaries. Lord Derby introduced the Black-necked Swan, of which he had six at Knowsley, and the rare Sandwich Island Goose bred freely in the collection. No trouble or expense was spared in adding to the series; collectors were despatched to the remoter portions of the globe in order to enrich the cages and aviaries.

The Ocellated Turkey was a special desideratum—alive if possible, but welcome living or dead. Lord Derby sent out Mr. J. Bates (not H. W. Bates) to Central America for the express purpose of obtaining the bird. Mr. Bates was away for fifteen months, and made a considerable collection of animals, both living and dead. He brought home a live (female) *ocellata* and also several skins of both sexes. On July 2nd, 1851, Lord Derby died, aged seventy-seven; the museum was bequeathed to the city of Liverpool, and the menagerie sold by auction. The sale began on October 6th, 1851, and lasted a week, realising about £7000. Two of the Black-necked Swans and five Impeyan Pheasants were selected by Queen Victoria in accordance with his Lordship's will; the fate of the Ocellated Turkey (if then alive) is unknown.

Although the female *ocellata* is a fine bird, the absence of pairs rendered these early importations of academic value only. In 1856, however, a pair and an odd bird were obtained in Honduras, and brought over in August of the same year by Mr. George Skinner and Captain Wilson. The Turkeys were presented to Queen Victoria, who deposited them in the Zoological Gardens. Unfortunately,

although they lived nearly two years, the birds did not breed; the male at any rate was healthy, and used to show off in the spring. His portrait was sketched by Mr. T. W. Wood, who has vividly described him "with his tail spread, wings drooping, and all his feathers puffed up, as if he would burst with pride. At such a time his head was thrown back so far, and his breast feathers projecting so far that he could not observe the ground beneath him, and consequently he often stepped into the water, much to his annoyance and the visitors' amusement." The portrait of this individual, together with the foregoing account, will be found in the Rev. J. G. Wood's 'Illustrated Natural History.' The last survivor of the three appeared to have been an old bird which died in the Gardens in 1860.

In the spring of 1861 Mr. Robert Owen, a resident in Guatemala, brought over a small collection of Central American birds—one Guan, one Globose Curassow, one Tinamou, two Tree Colins, and one Ocellated Turkey. The last-named (a female) was placed in the Zoo with the rest of the collection; it was in poor condition, but improved under the care of Mr. Bartlett, and apparently lived for three years. On July 20th, 1880, Mr. W. E. Sibeth presented a pair of *ocellata* to the Zoological Gardens—these being specially welcome, as none had been exhibited since 1864. In May, 1909, the writer saw a fine pair in the Zoo at Berlin. They were kept in a small building divided into three or four compartments; it was practically a mammal house, as the other occupants were a Babirusa, a Kinkajou, a Great Anteater, a Tree Kangaroo, and an Ayeaye.

The writer has studied several living examples. Although even as a museum specimen the Ocellated Turkey is a fine bird, when seen alive it is truly superb. An adult male, when showing off with distended plumage, and expanded tail rocking from side to side as if driven by clockwork, suggests in its gorgeous appearance a huge metallic butterfly. The plumage is shot with a coppery gloss, like that on a Monal Pheasant, and the tail coverts are ocellated with discs of exquisite sapphire blue. The study of the bare areas in life is interesting. The head has the skin bright violet-blue or grey-blue, the throat and upper neck are grey-blue, the skin round the ear is dirty grey. The eyelids are bright carmine, and there are a few

bright red, pea-like caruncles on the cheeks and throat. In both sexes the top of the head is dotted with small fleshy caruncles, yellow like suet, and recalling the uropygial gland in a certain species of Hornbill. The bill is greyish; the legs and feet are either bright lake or dull flesh-colour. The occiput is sprinkled with short black filamentous feathers, and suggests a bald head feebly covered with hair.

All the specimens seen by the writer were in excellent health, and were kept out of doors like common poultry, with an unheated shed to sleep in. This specimen is, however, subject to the attacks of internal parasites; the old bird, which died in London in 1860, was found to have a hydatid cyst in the liver. The Ocellated Turkey breeds readily with the common domestic bird, and many years ago hybrids were obtained at the Zoo. Altogether the introduction of this noble species should rank as one of the most attractive chapters of aviculture; Prof. Elliott has well said: "It would be difficult to imagine a more beautiful object than the Ocellated Turkey."

*Bridge House,
Sale, Manchester.*

THE ARRIVAL OF "KATE."

Many things have been written, from time to time, about the Indian Shamah, including descriptions of his appearance, habits, accomplishments, virtues, vices, house-building, and family rearing.

I am not sure, however, that much attention has been devoted to one interesting stage of his existence, immediately preceding the house-building.

At present I have an engaged couple sojourning under my roof, whose antics are a source of continual interest and amusement.

"Bob" has enjoyed a bachelor existence for a number of years and might have continued in single blessedness were it not for an intimation, which appeared in the matrimonial columns of his weekly paper, that a deserving spinster was on the look-out for a husband.

There was a bit of a rush for "Kate," notwithstanding the absence of any reference to her age, appearance, or disposition.

However, Bob hustled a bit more than the others, and secured the lady.

Kate arrived, looking decidedly cheap, after her long voyage from India and subsequent experiences in the Irish Sea, with drooping wings and closing eyes, and she needed considerable washing down, tonicking, and feeding with many cockroaches and other delicacies, before she was in a condition to be presented to her future husband.

Up to this he was enjoying an open-air life, with plenty of room, but he manifested no objection to transferring his quarters to quite a small villa next Kate's dwelling.

Bob's first call was rather a violent affair, and resolved itself into a sort of rough-and-tumble on her doorstep, with the door closed. "Rotten form of sport this kind of canoodling," I imagine I heard him say.

Proceedings subsequently quieted down somewhat, and he divided his attention between wrestling with the Demon beetle-trap, in a vain endeavour to extract some of the contents, and dashing on to Kate's doorstep. He made himself look wonderfully attractive, spreading his wings and displaying the beautiful white patch above his tail, singing lustily all the time, in a more subdued and attractive manner, however, than usual.

Kate seemed much gratified with all the attention, showing her satisfaction by whistling her own little tune, and calling him back whenever he wandered away to the counter-attraction of the beetle-trap.

As regards their conversation, it seemed to partake of the form of, "D'ye know, I'm getting very fond of you," answered from the other side of the door by: "*Now* you're talking," "None of your blarney," or other vulgar expressions picked up in the country of the lady's adoption.

A horrid old cynic in the person of a Gold-fronted Fruitsucker living opposite understood, I think, more of the conversation than I did, as I observed him turning a more vivid green than usual—with utter disgust, I take it; and I think I heard a murmur from the Nightingale living next door, "I can stand a good deal, but *this* is a *bit* thick." I am not prepared, however, to swear to this.

Be that as it may, Bob and Kate don't care a row of meal-worms for public opinion. They hope to get married in a few months, and meanwhile they intend to comport themselves according to their own ideas—now and then a scrap between the bars, occasionally a wordy argument with crests erected and fierce demeanour, but mainly occupied in exchanging beautiful thoughts on the doorstep and looking forward to the coming spring.

G. E. Low.

REFERENCE LIST OF COLOURED PLATES OF THE PARROTS.

By Dr. E. HOPKINSON.

(Continued from page 89.)

Trichoglossus haematodes, BLUE-FACED LORIKEET.

Mivart, *t. c.*, pl. 28.

Wyt., pt. 11, pl. 4 (head).

T. forsteni, FORSTEN'S LORIKEET.

Mivart, *t. c.*, pl. 29. (Inaccurate; see Salvy. Ibis, 1905, p. 417.)

Seth-Smith, Parrakeets, 4, pl. 1.

Wyt., pt. 11, pl. 3 (head).

T. cyanogrammus, GREEN-NAPED LORIKEET.

Mivart, *t. c.*, pl. 30, fig. 1.

Wyt., pt. 11, pl. 4 (head).

T. massena, MASSENA'S LORIKEET.

Mivart, *t. c.*, pl. 31, fig. 1.

T. flavicans, YELLOWISH-GREEN LORIKEET.

Mivart, *t. c.*, pl. 32.

Wyt., pt. 11, pl. 4 (head).

T. nigrigularis, BLACK-THROATED LORIKEET.

Mivart, *t. c.*, pl. 30, fig. 2.

Av. Mag., 1906, pl., p. 21.

T. coccineifrons, GRAY'S LORIKEET.

Mivart, *t. c.*, pl. 31, fig. 2.

Wyt., pt. 11, pl. 5, fig. 1.

T. mitchelli, MITCHELL'S LORIKEET.

Mivart, *t. c.*, pl. 33.

Wyt., pt. 11, pl. 4 (head).

T. ceruleiceps, BLUE-HEADED LORIKEET.

Mivart, *t. c.*, pl. 34.

***T. nova-hollandiae*, SWAINSON'S LORIKEET.**

? Mivart, Mon. Lor., pl. xxxv. (Salvadori, Ibis, 1905, 418.

Gould, B. of Australia, v, pl. 48.

NL., xviii, 173, pl. 20.

Russ., vol. iii, pl., p. 706.

Cass., pl., p. 443.

***T. verreauxius*, VERREAUX'S LORY.**

Mivart, t. c., pl. 36.

***T. rubritorques*, RED-COLLARED LORIKEET.**

Mivart, t. c., pl. 37.

Gould, B. Aust., v, pl. 49.

Seth-Smith, Parakeets, 10, pl. 4.

Wyt., pt. 11, pl. 4 (head).

***T. roseobergi*.**

Mivart, t. c., pl. 38.

Wyt., pt. 11, pl. 4 (head).

***T. ornatus*, ORNAMENTED LORIKEET.**

Mivart, t. c., pl. 39.

Seth-Smith, Parrakeets, pl. 2, p. 12.

Wyt., pt 11, p. 4 (head).

***T. johnstoniae*, MRS. JOHNSTONE'S LORIKEET.**

Av. Mag. N. S., iv, pl., p. 83 (1906).

***Psitteuteles flavoviridis*, YELLOW-GREEN LORY.**

Mivart, t. c., pl. 40.

***P. meyeri*.**

Mivart, t. c., pl. 41, fig. 1.

***P. bonthainensis*, LORY OF BONTHAIN MOUNTAIN.**

Mivart, t. c., pl. 41, figs. 2, 3.

***P. euteles*, PERFECT LORIKEET.**

Mivart, t. c., pl. 42.

Seth-Smith, Parrakeets, pl. 3, p. 18.

Wyt., pt. 11, pl. 5 (head).

***P. weberi*.**

Weber's Reis. Ost-Ind., pl. 17, fig. 1. (✓HL.)

***P. chlorolepidotus*, SCALY-BREADED LORIKEET.**

Mivart, t. c., pl. 43.

Gould, B. Aust., pl. 50.

Cass., pl., p. 427.

***Ptilosclera versicolor*, VARIED LORIKEET.**

Mivart, t. c., pl. 44.

Gould, B. Aust., v, pl. 51.

Seth-Smith, Parrakeets, pl. 20, p. 255.

Av. Mag., 1903, pl., p. 287.

Wyt., pt. 11, pl. 5 (head).

Glossopsittacus goldiei, GOLDIE'S LORY.

Mivart, *t. c.*, pl. 45, fig. 1.

G. diadematus, DIADEMED LORY.

Mivart, *t. c.*, pl. 54.

G. concinnus, MUSKY LORIKEET.

Mivart, *t. c.*, pl. 45, fig. 2.

Gould, B. Aust., pl. 52.

Seth-Smith, Parrakeets, pl. 3, p. 17.

Wyt., pt. 11, pl. 5 (head).

G. porphyrocephalus, PURPLE-CROWNED LORIKEET.

Mivart, *t. c.*, pl. 46, fig. 1.

Gould, B. Aust., v, pl. 53.

G. pusillus, LITTLE LORIKEET.

Mivart, *t. c.*, pl. 46, fig. 2.

Gould, *t. c.*, pl. 54.

Hypocharmosyna wilhelmina, WILHELMINA'S LORIKEET.

Mivart, *t. c.*, pl. 47.

Wyt., pt. 11, pl. 4 (head).

H. placens, THE PLEASING LORIKEET.

Mivart, *t. c.*, pl. 48.

Wyt., pt. 11, pl. 6 (head of male).

H. subplacens, SCLATER'S LORIKEET.

Mivart, *t. c.*, pl. 49.

Wyt., pt. 11, pl. 6 (head).

H. rubronotata, RED-MARKED LORIKEET.

Mivart, *t. c.*, pl. 52.

H. kordoana, THE KORDO LORIKEET.

Mivart, *t. c.*, pl. 51 (cock and hen).

H. rubrigularis, RED-THROATED LORIKEET.

Mivart, *t. c.*, pl. 50, fig. 1.

Wyt., pt. 11, pl. 5 (head).

H. aureocincta, GOLDEN-RANDED LORIKEET.

Mivart, *t. c.*, pl. 50, figs. 2, 3.

Rowley, Orn. Misc., i, pl., p. 260 (cock and hen)

H. palmarum, PALM LORIKEET.

Mivart, *t. c.*, pl. 53, fig. 1.

H. meeki.

Roths. and Hartert, Nov. Zool., ix, pl. vii, fig. 3, 1903.

H. pygmaea, DWARF LORIKEET.

Mivart, *t. c.*, pl. 53, fig. 2.

Charmosynopsis pulchella, FAIR LORIKEET.

Mivart, *t. c.*, pl. 55.

Rowley, Orn. Misc., i, pl., p. 149 (male).

C. margaritæ, MARGARET'S LORIKEET.

Mivart, *t. c.*, pl. 56.

Charmosyna papuensis, PAPUAN LORY.

Mivart, *t. c.*, pl. 57.

NL., xviii, 169, pl. 19.

Wyt., pt. 11, pl. 6 (head tail, and wing).

C. stellæ, STELLA'S LORY.

Mivart, *t. c.*, pl. 58.

B. N., 1910, pl., p. 65.

Wyt., pt. 11, pl. 5 (head).

C. josephinae, JOSEPHINE'S LORY.

Mivart, *t. c.*, pl. 59.

Wyt., pt. 11, pl. 6.

C. atrata.

Rothsch., Nov. Zool., vi. pl. 2, fig. 1 (1899).

Oreopsittacus arfaki, ARFAC LORIKEET.

Mivart, *t. c.*, pl. 60.

Rowley, Orn. Misc., i, pl., p. 145 (= young).

Wyt., pt. 11, pl. 6 (head of cock).

O. grandis, VICTORIA LORIKEET.

Mivart, *t. c.*, pl. 61.

Wyt., pt. 11, pl. 4, (head).

CYCLOPSITTACIDÆ.

Neopsittacus musschenbroeckii.

Rowley, Orn. Misc., ii, pl., p. 61.

Wyt., pt. 12, pl. (head, etc.).

N. pullicauda.

Wyt., pt. 12, pl. 1, fig. 6.

(Wytzman also gives plates of the heads of *P. iris* and *rubripileus*.)

Cyclopsittacus edwardsi.

Wyt., pt. 12, pl. 2, fig. 4.

C. maccoyi, RED-FACED LORILET.

Hartert, Nov. Zool., vi, pl. 4, figs. 1, 2 (heads, male and female).

Wyt., pt. 12, pl. 1 (head).

C. aruensis.

Hartert, Nov. Zool., vi, pl. 4, figs. 5, 6 (heads, male and female).

C. virago.

Hartert, *t. c.*, pl. 4, figs. 3, 4 (heads, male and female).

Wt., pt. 12, pl. 2 (heads, male and female).

C. inseparabilis.

Hartert, *t. c.*, pl. 4, fig. 7 (head).

Wyt., *t. c.*, pl. 2 (head).

C. suavissimus.

Sclater, P.Z.S., 1876, pl. 54.

C. maciluraithi.

Rothsch., Nov. Zool., v, pl. 18, fig. 2 (hen). /Salvadori.

Wyt., pt. 12, pl. 2 (head).

(Wytzman also gives plates of the heads of *C. occidentalis*, *blythi*, *diophthalmus*, and *melanogenys*.)

CACATUIDÆ.

Microglossus aterrimus, GREAT BLACK COCKATOO.

Gould, B. Australia, Suppl., pl.

NL., xviii, 158, pl. 16.

Wyt., pt. 5, pl. (head).

Green, "Parrots in Captivity," iii, p. 125.

Calyptrorhynchus baudini, BAUDIN'S COCKATOO.

Gould, B. Aust., v, pl. 13.

C. funereus, BLACK COCKATOO.

Gould, B. Aust., v, pl. 11.

C. xanthonotus, YELLOW-EARED BLACK COCKATOO.

Gould, B. Aust., v, pl. 12.

C. banksi, BANKSIAN BLACK COCKATOO.

Gould, B. Aust., v, pl. 7.

Wyt., pt. 5, pl. (head).

C. macrorhynchus, GREAT-BILLED BLACK COCKATOO.

Gould, B. Aust., v, pl. 8.

C. stellatus, WESTERN BLACK COCKATOO.

Gould, B. Aust., v, pl. 9.

NL., xviii, 154, pl. 15.

C. viridis, LEACH'S COCKATOO.

Gould, B. Aust., v, pl. 10.

Callocephalum galeatum, GANG-GANG COCKATOO.

Gould, B. Aust., v, pl. 14.

Russ, iii, 675, 860, pl. (head).

Wyt., pt. 5, pl. (head).

Green, "Parrots in Captivity," iii, p. 131.

Cacatua galerita, GREATER SULPHUR-CRESTED COCKATOO.

Gould, B. Aust., v, pl. 1.

C. triton, TRITON COCKATOO.

Wyt., pt. 5, pl. (head).

C. sulphurea, LESSER SULPHUR-CRESTED COCKATOO.

NL., xviii, 149, pl. 14.

Russ., iii, 655.

C. Moluccensis, GREAT SALMON-CRESTED COCKATOO.

Green, "Parrots in Captivity," iii, p. 137.

C. leadbeateri, LEADBEATER'S COCKATOO.

Gould, B. Aust., v, pl. 2.

NL., xviii, 149, pl. 13.

Russ., iii, 665, pl.

Cass., pl., p. 427.

C. sanguinea, BLOOD-STAINED COCKATOO.

Gould, B. Aust., v, pl. 3.

C. goffini, GOFFIN'S COCKATOO.

Wyt., pt. 5, pl. 1, fig. 1.

C. ducorpsi, DUCORPS' COCKATOO.

Wyt., pt. 5, pl. 1 (head).

C. roseicapilla, ROSE-BREASTED COCKATOO.

Gould, B. Aust., v, pl. 4.

Cass., pl., p. 427.

Russ., iii, 669, pl.

Wyt., pt. 5, pl. (head).

Licmetis nasica, SLENDER-BILLED COCKATOO.

Gould, B. Aust., v, pl. 5.

Russ., iii, 677, 860, pl., (head).

Wyt., pt. 5, pl. (head).

Callopsittacus novaehollandiae, COCKATIEL.

Gould, B. Aust., v, pl. 45.

NL., xviii, 206, pl. 30.

Cass., 428, pl.

Russ., iii, 686, 860.

Wyt., pt. 5, pl. 2.

PSITTACIDÆ.

Nasiterna pygmaea, NEW GUINEA PYGMY PARROT.

Rowley, Orn. Misc., i, 2 plates (male and female), pp. 154, 161.

N. nanina.

Forbes and Robertson, Bull. Liverp. Mus., i, pl. ii, fig. 2. /Hll.

N. mafoorensis.

Rowley, Orn. Misc., 206, pl. (male and female).

N. pusio.

Rowley, t. c , pl., p. 155.

Anodorhynchus leari, LEAR'S MACAW.

Av. Mag., 1907, pl., p. 111.

Ara ararauna, BLUE AND YELLOW MACAW.

NL., xviii, 110, pl. 6.

A. hyacinthina, HYACINTHINE MACAW.

Green, "Parrots in Captivity," ii, p. 61.

A. macao, RED AND BLUE MACAW.

NL., xviii, 113, pl. 7.

Green, "Parrots in Captivity," ii, p. 69.

A. maracana, ILLIGER'S MACAW.

Green, "Parrots in Captivity," ii, p. 81.

A. militaris, MILITARY MACAW.

NL., xviii, 107, pl. 5.

Green, "Parrots in Captivity," ii, p. 62.

A. nobilis, NOBLE MACAW.

NL., xviii, 117, pl. 8.

Conurus hamorrhous, BLUE-CROWNED CONURE.

Spix., Av. Brasil, i, 29, pl. 13 (1834). /B. & C.

C. nanday, BLACK-HEADED CONURE.

Seth-Smith, Parrakeets, pl., p. 36.

C. rubrilarvatus, RED-MASKED CONURE.

Seth-Smith, t. c., pl., p. 36,

C. wagleri, WAGLER'S CONURE.

Gray, Gen. Birds, ii, 413, pl. 102 (1845). /B. & C.

C. euops, CUBAN CONURE ("Speckled Conure").

B. N., 1914, pl., p. 143 (crude).

C. rubritorques, RED-THROATED CONURE.

Sclater, P.Z.S., 1886, pl. 56.

C. cactorum, CACTUS CONURE.

Seth-Smith, Parrakeets, pl., p. 42.

C. œruginosus, BROWN-THROATED CONURE.

Seth-Smith, t. c., pl. 42.

C. aureus, GOLDEN-CROWNED CONURE.

B. N., iv, 279, pl.

Russ, iii, pl., p. 261.

Conuropsis carolinensis, CAROLINA CONURE.

Russ, iii, 221, 838, pl.

Wilson, Amer. Ornith., i, 376, pl. 26. (Jardine's edition.)

Cyanolyseus patagonicus, PATAGONIAN CONURE.

Seth-Smith, Parrakeets, pl., p. 54.

NL., xviii, 99, pl. 4.

Leptosittaca branickii, BRANICKI'S PARROT.

Berlepsch and Stolz., Ibis, 1894, 432, pl. xi. /HL.

Pyrrhura leucotis, WHITE-EARED CONURE.

Seth-Smith, Parrakeets, pl., p. 62.

Cass., pl., p. 433.

P. emma.

B.M. Cat., xx, pl.

P. egregia.

Sclater, Ibis, 1881, 130, pl. 4.

P. melanura.

Spix., Av. Bras., i, 36, pl. 22, figs. 1, 2.

P. souancei.

Verr., Rev. et Mag. Zool., 1858, 437, pl. 12.

P. herlepsi.

B.M. Cat., xx, pl. ii, fig. 1.

P. rupicola.

B.M. Cat., xx, pl. ii, fig. 2.

P. hypoxantha.

Salvadori, Ibis, 1900, pl. 14.

P. perlata, PEARLY CONURE.

Seth-Smith, Parrakeets, pl., p. 62.

P. rhodogaster.

Sclater, P.Z.S., 1864, 298, pl. 94.

P. rhodocephala.

B.M. Cat., xx, pl. iii.

Myopsittacus monachus, QUAKER PARRAKEET.

Greene, Parrots in Captivity, iii, col. fig. /S. S.

Russ, iii, 206, 836, pl.

M. luchi, LUCHS' PARRAKEET.

B.M. Cat., xx, pl. iv.

Bolborhyuchus aurifrons.

Lesson, Cent. Zool., 33, pl. 18 (1830). /B. & C.

B. andicola.

B.M. Cat., xx, pl. 5.

B. panychlorus.

Salv. and Godman, Ibis, 1883, 211, pl. 9, fig. 1.

Pittacula modesta, SCLATER'S PARROTLET.

B.M. Cat., xx, pl. 11 (male and female).

P. xanthops.

Salvin, Nov. Zool., ii, 19, pl. ii, fig. 2. /H.L.

Brotogerys virescens, WHITE-WINGED PARRAKEET.

Seth-Smith, Parrakeets, pl., p. 86.

B. pyrrhopterus, ORANGE-FLANKED PARRAKEET.

B.N., iii, pl., p. 45.

N.L., xviii, 179, pl. 29.

B. gustavi.

Berlepsch, Ibis, 1889, 181, pl. 6.

B. tui, TUI PARRAKEET.

Seth Smith, Parrakeets, pl., p. 86.

Amazona guildingi, GUILDING'S AMAZON.

Av. Mag. (2), ii, 121, pl. 10.

A. imperialis, AUGUST AMAZON.

Av. Mag., viii, pl., p. 151.

A. versicolor, ST. LUCIA AMAZON.

Av. Mag., viii, pl., p. 275.

A. bouqueti, BOUQUET'S AMAZON.

Av. Mag., vii, pl., p. 109.

A. merceuaria, TSCHUDI'S AMAZON.

Tsch., Faun. Peruana, Aves, 270, pl. 27 (1846). /B. & C.

A. aestiva, BLUE-FRONTED AMAZON.

Cass., 441, pl.

Russ, iii, 518, 856, pl.

A. diademata, DIADEMED AMAZON.

B.M. Cat., xx, pl. (head).

A. salvini, SALVIN'S AMAZON.

B.M. Cat., xx, pl. (head).

A. lilacina, LESSON'S AMAZON.

B.M. Cat., xx, pl. (head).

A. xanthops.

Spix., Av. Bras., i, 39, pl. 26 (1824). /B. & C.

A. bodini, BOEIN'S AMAZON.

Finsch, P.Z.S., 1873, 569, pl. 49.

A. festiva, FESTIVE AMAZON.

N.L., xviii, 122, pl. 9.

A. chlorouota.

B.M. Cat., xx, pl. viii.

A. pretrei, PRETRE'S AMAZON.

Temm., Pl. Col., iv, pl. 492 (1830). /B. & C.

A. bahamensis, BAHAMA AMAZON.

Av. Mag., 1904, pl., p. 239.

Pionus menstruus, RED-VENTED PARROT.

Plate in Reichenow's Papageien. I have only recently seen this volume, which contains a number of good chromo plates of Parrots, references to which I am sorry not to have had time to embody in this list.

P. corallinus, CORAL-BILLED PARROT.

Rowl. Orn. Misc., iii, pl., p. 1.

P. tumultuosus.

Rowley, Orn. Misc., iii, pl., p. 1.

P. fuscus, DUSKY PARROT.

B. N., vi, pl., p. 161.

Derotyus accipitrinus, HAWK-HEADED PARROT.

B.N., vi, pl., p. 32.

Russ., iii, 484, 853, pl.

Pionopsittacus pileatus, PILEATED PARROT.

Av. Mag. (1905), 351, pl.

P. pyrrhops.

B.M. Cat., xx, pl. 9.

Urochroma hueti.

Temm., Pl. Col., iv, p. 491 (1830). /B. & C.

U. stictoptera.

Slater, P.Z.S. (1862), 112, pl. 11. /B. & C.

Poeocephalus robustus, LEVAILLANT'S PARROT.

Le Vaill., Parr., pls. 136 (adult) and 131 (var.), 1805.

P. fuscicollis, BROWN-NECKED PARROT.

Rochebrune, Ois. Senegambie, 169, pl. lxi.

P. gulielmi, JARDINE'S PARROT.

Reichen., Vogelb., pl. 7, fig. 7.

P. fuscicapillus, BROWN-HEADED PARROT.

Finsch and Hartl., Vog. Ost-Afr., pl. 7 (1870).

P. citreicapillus.

Heugl., Orn. N. O. Afr., pl. 26.

P. senegalus, SENEGAL PARROT.

B.N., v, pl., p. 1.

Russ., iii, 461, 853, pl.

Reichen., Vogelb., pl. 7, fig. 1.

P. rufiventris.

Reichen., t. c., pl. 20, fig. 7 (1878-1883).

P. meyeri, MEYER'S PARROT.

Reichen., t. c., pl. 7, fig. 1.

P. rueppelli, RÜPPELL'S PARROT.

Reichen., t. c., pl. 7, fig. 3.

Psittacus erithacus, GREY PARROT.

Keulemans, Cage Birds (uncompleted, 1871), pl. 1.

N.L., xviii, 126, pl. 10.

Cass., 439, pl.

Rochebrune, Ois. Senegambie, pl. x (var.).

Reichen., Vogelb., pl. 7, fig. 5.

P. timneh, TIMNEH PARROT.

Reichen., t. c., pl. 7, fig. 4.

Coracopsis vaza, GREATER VAZA PARROT.

Milne-Edw. and Grandid., Hist. Madag., Ois., pl. 1 (1876).

C. nigra, LESSER VAZA.

Milne-Edw. and Grandid., t. c., pl. 1 (1879).

Dasyptilus pesqueti, PESQUET'S PARROT.

N.L., xviii, 160, pl. 17.

Prioniturus platurus, RACKET-TAILED PARROT.

Av. Mag. (1903), pl., p. 345 (female).

Gould, B. Asia, vi.

P. discurus, GREAT RACKET-TAILED PARROT.

Gould, t. c., vi.

P. flavicans, PHILIPPINE RACKET-TAILED PARROT.

Gould, t. c., vi.

P. spatuliger, LITTLE RACKET-TAILED PARROT.

Gould, t. c., vi.

[NOTE.—Green's "Parrots in Captivity," 3 vols., 1884, contains coloured plates of various species.—ED.]

(To be continued.)

OBITUARY.

Bridgeman.—We greatly regret to record the death of another of our members, who has passed over whilst serving his country in the war. Commander the Honble. RICHARD ORLANDO B. BRIDGEMAN, D.S.O., R.N., was second son of the fourth Earl of Bradford and brother of the present Peer. Immediately before the war he was serving in the light cruiser H.M.S. "Hyacinth." On the 14th of July, 1916, he was gazetted a Companion of the D.S.O. for the following services:—"Commander Bridgeman displayed great courage and coolness on August 19, 1915, in command of two whalers, which proceeded into Tanga Harbour. The manner in

“ which the whalers endeavoured, though subjected to a heavy and accurate fire, to carry out their orders and board the s.s. ‘Markgraf,’ was worthy of the best traditions of the Royal Navy.”

Commander BRIDGEMAN was a charming personality, as well as a keen sportsman and naturalist. He had been a member of the Avicultural Society since December, 1904.

“ They shall grow not old, as we that are left grow old :

“ Age shall not weary them, nor the years condemn.

“ At the going down of the sun and in the morning

“ We will remember them.”

Jamrach.—Mr. Albert Edward Jamrach died in January. For several generations his name has been known all over the world as a dealer in animals and birds, his father and grandfather having preceded him in the trade.

He was a cultured man, speaking several languages. The war killed his business and also practically wore him out.

MEETING OF THE COUNCIL.

A meeting will be held by permission of the Zoological Society of London in the offices of the Gardens on Friday, February 23rd, at 3 p.m. It is hoped that as many as can possibly attend will do so.

“ THE ZOOLOGIST.”

This old-established Natural History monthly publication, having been acquired by Messrs. Witherby & Co., will in future be incorporated with the illustrated monthly magazine, “British Birds,” published by the same firm at 326, High Holborn; a magazine which always contains matter of much interest.

Mr. Lewis Harcourt, P.C. (a member of the Society) has adopted the titles of Baron Nuneham of Nuneham Courtney, and Viscount Harcourt of Stanton Harcourt, on being raised to the Peerage.



CRIMSON-RINGED WHYDAH.

THE AVICULTURAL MAGAZINE,

BEING THE JOURNAL OF
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WHYDAHs.

By W. SHORE BAILY.

The Whydahs best known to our aviculturalists are the Giant, Jackson, Crimson-ringed, Red-collared, Red-shouldered, Paradise, Queen, and Pintailed. Of these, as far as I know, only the Giant, Jackson, Red-collared, and Pintailed have been bred in this country, and no details of the nesting of the last-named have been published. They are all highly desirable aviary birds, as they are so easy to cater for, and do not interfere with any other and smaller birds that may be kept with them. The long tails of the males, when these are in breeding plumage, are always a source of wonder and delight to visitors.

My experience of the Giant Whydah (*C. procne*) is confined to my occasional visits to the Zoo, where there are usually one or two of these fine birds to be seen. The cock is quite a large bird, and when in full colour, is black, the feathers on the wings being edged with brown. A patch of scarlet on the wing-buts is very conspicuous when the bird is in flight. Mr. Teschemaker gives a very interesting account of the breeding of this bird in the 'Avicultural Magazine' for the year 1909. He describes the eggs as dull greyish-white, clouded with blue, grey and purplish markings. I hope one day to secure a pair of these Whydahs for my own aviaries.

The Jackson Whydah (*D. jacksoni*) is the next largest of the species. I got my three birds from our member, Mr. G. E. Low,

whose brother brought them over from East Africa. The cock in breeding plumage is for the most part black, but some of the feathers on the wing are edged with brown. A white shield at the base of beak, and a peculiarly curved tail, are noticeable features of this bird. When on the ground it carries itself very like a small black Bantam Cock.

Jacksons are particularly interesting from the fact that they have regular playing grounds. The one constructed by my bird was about four feet in diameter. In the centre a tuft of grass about a foot high was left; around this many times a day he went through a course of dancing and jumping for the benefit of his two hens, who watched the proceedings from the top of the surrounding grass. The nest was a very neat one, constructed out of the growing grass, and lined with the flowering heads of various grasses. I can't say whether it was built by the cock, but in all probability it was. At any rate, the hen lined it, as by seeing her carrying some grass in her beak, I was led to discover her nest. Three eggs were laid, greenish white, thickly spotted with brown and grey. Incubation lasted twelve days, and the young were in the nest sixteen days. No artificial food of any kind was supplied to them, and the young ones were principally reared upon grass seeds, spray millet, and canary seed. They are now quite as big as their female parent, and I am afraid that when I catch them up shortly I shall have some difficulty in identifying them. All five birds still keep together, and spend a great deal of time upon the ground. The male's song is a harsh wheeze. I have not heard the hen's call-note at all.

The Crimson-ringed Whydah (*P. laticauda*) is another very handsome bird. The cock when in full colour is black, the back and wings being striated with brown. The crown of the head and a wide ring around the neck, which forms a V at the throat, are crimson. The hen is a good-sized bird, about one-third smaller than the Jackson hen. My birds were imported from East Africa by Mr. E. W. Harper, from whom I got them. The cock only came into colour at the end of July. He has built two or three nests, but has failed to get either of his hens to take possession of them. When he is displaying, the long tail feathers are spread to their full extent, the wings are drooped as in the case of the common fowl and

pheasant, and the head is packed well into the shoulders, which gives the bird an altogether curious appearance. His nests were woven with long grass, one in a conifer, another in a bush, and the third in a bunch of grass. This last nest was very like the Jackson's, but instead of being on the ground was about two feet above it. I had great hopes at one time that one of the hens was going to line it, but she decided otherwise. It is possible that the natural time for these birds to nest is in our winter. The song of the Crimson-ringed Whydah is practically inaudible except for the last note, which resembles the croaking of a frog.

The Red-collared Whydah (*P. ardens*) is a somewhat smaller bird than *P. laticauda*, the hen markedly so. The body colour of the cock in summer plumage is black; the back and wings being striated with brown, but not so heavily as in the case of the last-mentioned bird. The red collar is also narrower and does not reach around to the back of the neck. This bird was bred in 1909 by Mrs. Annington, but no particulars of the event were published.

Last year I also succeeded in breeding it. The nest was placed in a laurel. It was a very flimsy structure of dried grass, probably built by the cock. The first eggs laid were white, but these were evidently abnormal, as the hen has since laid three other clutches, all of which were pale bluish-green, mottled with brown. Two eggs were laid on each occasion, and these were considerably smaller than those of the Jackson's. The incubation period was about twelve days. This year I turned her into the same aviary with the young cock, her own mate having died. In the same aviary with her were some Crimson-crowned Weaver Cocks, one of which she selected as a husband in preference to her own offspring, and a fine hybrid has been the result. The young Whydah born in 1915, although now over a year old, shows no sign of colour, but sings inaudibly and displays quite as freely as his male parent used to do. The hybrid, a larger bird, already shows a pale buff collar on each side of the neck, which does not, however, meet at the throat. It looks as if he might make a very pretty bird, if he lives to come into full colour. With the young Giant Whydahs, Mr. Teschemaker tells us, signs of colour were visible when they were only a few months old. I find

these birds very keen on live food, and both gentles and mealworms were very freely given to the young by the hen.

The Red-shouldered Whydah (*U. axillaris*) is a heavier-built bird than either *P. ardens* or *P. laticauda*, but the absence of the long tail makes it look smaller. In breeding plumage the cock is black. His wing feathers are edged with brown, and he has a bright patch of scarlet on the shoulders. The beak, which is large and powerful, is light bluish-grey. When displaying he spreads his wings so as to show the red on the shoulders in just the same way as do the Red-winged Blackbird and Troupial. The feathers around the neck are also fluffed up and the tail feathers spread out fanwise. Quite early in the year he built a nest in a low bush, and his hen laid two eggs therein. These were white, thickly speckled with small red spots. In my absence on holiday the Red-collared Whydah hen took a fancy to the same nest, and on my return I found the eggs of both birds in the nest, so I removed them for my collection. Later on he built her another nest in a creeper and this time she was undisturbed. Two eggs only were laid. The incubation was twelve days. One young one was hatched, but it only survived a short time. The song of this bird is harsh and unmusical, but not very loud.

Of Paradise Whydahs (*S. paradisea*) I have seven, four cocks and three hens. I have long wanted to breed this handsome little bird, but it seems to be a difficult proposition. So far, none of my males have shown the slightest sign of coming into colour this season, and of course if they do so now it will be too late to attempt to breed from them.* I fancy that to get success one will have to secure a cock that comes into colour about April or May, which it is not always possible to do. I shall keep on trying and one day may be able to send an account of their successful rearing.

The Pintail Whydah (*N. principalis*) is another Whydah that it does not seem easy to breed, although Mrs. Annington succeeded in doing so in 1909, a year which must be described as a good Whydah year. No account of this success was available for publication, so very little is known of this bird's nesting habits in captivity. In the case of my Pintails I lost my hen early in the year from

* [Autumn].



JACKSON'S WHYDAH (COCK).



CRIMSON-RINGED WHYDAH (HEN).

pneumonia, and was unable to replace her, so I had no chance of breeding them. I consider this species to be a delicate one.

My Queen Whydahs (*N. regia*) when out of colour very closely resemble Pintails in the same stage of plumage. They have not come into colour with me this year, and I am strongly inclined to think that they are both hens, especially as my cock *N. principalis* has shown them marked attention all the season. They have made no attempt at nesting.

One other little Whydah I once had, the Long-tailed Com-basson (*V. hypocherina*). They were delicate little things, and although kept indoors, only lived a few months. I judge them to be more fit for the indoor birdroom than for an outdoor aviary, although no doubt they would do well enough outdoors with Waxbills and other small fry during our few summer months.

NOTES ON SOME OF THE VIREOS (OR GREENLETS) OF NORTH AMERICA.

By THE LADY WILLIAM CECIL.

[BARONESS AMHERST OF HACKNEY.]

Among the small birds that are peculiar to America there are few more interesting than the Vireos, though their colour is insignificant, and they are far oftener heard than seen; still, to listen to their soft sweet voices is indeed a joy, and they take no small part in the endless chorus of the woodlands.

The Vireos do not, as a rule, live in the deep forests as do most of the little warblers, but generally inhabit districts less densely covered with trees.

Though they have the feet of the Oscines, Vireos may more properly be classified as "very distant cousins" of the Shrikes; but they are much smaller birds, only measuring from five to six inches. Their bills are Shrike-like in form, hooked at the end and notched, and in rare instances appear to be very slightly toothed behind the notch. Their colouring, as a rule, is olivaceous and greyish, though, of course, each species differs in shade and markings; both sexes and the young birds are alike—they have ten primaries, but in some

cases one is quite rudimentary, or so hidden that only nine can be counted.

All the Vireos are said to be entirely insectivorous, but I very strongly suspect that they now and then indulge in a nice ripe berry! They are not very shy birds, and probably would be easily tamed if taken from the nest and given suitable food and plenty of space, especially height, in an aviary.

The nests of the Vireos are beautifully made, and are probably considered veritable works of art in the bird-world. They vary in detail as to shape and material, though they all follow the same sort of design. They are pendulous and, in nearly every case, are hung from the farthest outside fork of a branch. They are generally exquisitely woven of dry grass and fibre, and mosses, and sometimes scraps of paper, wool, and hair are added, often all bound together with caterpillar silk.

The commonest of this family is the Red-eyed Vireo or Preacher (*V. olivaceus*). Its coat is greyish green, with a blue-grey cap, and a black line below it, forming a very distinct eyebrow to its bright red eye. Its feet are olive grey. It is entirely arboreal in its habits, rarely deigning to descend to the ground.

The Cow-bird sometimes chooses this bird's nest in which to lay its egg.

The voice of the Red-eyed Vireo is easily distinguished, as it is curiously declamatory, and in shady woods even at midday its song may be heard, voluble and decided, in short musical sentences with a pause between each, hence its appropriate name of "Preacher."

The Black-whiskered Vireo, or "Whip-Tom-Kelly" (*V. barbatulus*) is very like the Red-eyed Vireo in colour, but it has a line of dark spots on either side of the chin, and it has rather a longer bill. I have only seen two specimens of this Vireo, both in the Pino del Rio district of Cuba, though they come north to Florida. Both the birds were presumably cocks, as both were singing lustily, a sweet little song that sounded like "Twee-twee-tutti" many times repeated. When disturbed both birds (they were about half a mile apart) seemed very anxious and fussy, as if their little mates were near by, sitting; unfortunately we had not time to look for the nests, as big clouds were gathering and a heavy thunderstorm was fast coming

up, so we had to hurry on to reach shelter, for a tropical thunder-storm is no mean thing by which to be caught in the open !

The Warbling Vireo (*V. gilvus*) has the very sweetest of melodious notes, which often may be heard early in the morning in the trees in a village, or country town ; for though he builds in the quiet woods, he is a sociable little person, and seems to like human neighbours. It is easy enough to stand under a tree and listen to him without in any way disturbing his song, but it is very difficult to catch sight of him, as he hides so cleverly among the leaves.

I listened a long time to one which was singing high up in a maple tree, and though I was actually watching the branch on which he was perched, it was some time before I could discover him, so "protected" was he by his colouring of greyish-green, pale yellow, and pearl-shaded white.

An apparently smaller and paler, and, according to some ornithologists, a distinct variety, known as Swainson's Vireo (*V. swainsonii*), takes the place of the Warbling Vireo in the Rocky Mountains and westward. A pair of Swainsons, or what I believe to be these, were building in a secluded corner of Beacon Park, British Columbia, weaving a very elaborate nest, quite out of reach. These birds certainly seemed decidedly smaller than the Warbling Vireos of the Eastern States, though their colouring appeared much the same. Perhaps they were rather lighter in general tone, and with even less distinct shading. Their song had the same tender sweetness as that of the Eastern variety. Both birds of this little couple helped very energetically in nest building.

Bell's Vireo (*V. bellii*) is a still smaller bird, measuring well under five inches ; it has a greenish-grey head shading to olive and greenish-brown on the back, rather brighter towards the tail ; a whitish throat and chin, and a rather bright yellow breast, and one clear and one indistinct white bar on the wings. He is a cheery little fellow, with a clear voice very loud for his size.

Bell's Vireos may be seen and heard almost any spring and summer day in the open country and sparsely-wooded districts anywhere between "Kansas and the Rockies" ; I have never heard them or seen them in thick or dark woods.

The Solitary Vireo (*V. solitarius*), unlike the rest of th

family, usually inhabits rather swampy woods. It has a wonderfully sweet song full of musical notes. It builds a very curious nest of fir-needles, leaves, and twigs, lined with lichen, and bound all round with spiders' webs. It is generally placed in some inaccessible place, and I have never been fortunate enough to get one myself, but there are very perfect specimens in several ornithological collections in America.

The Solitary Vireo is olive-green above with a bluish-grey head, from which it is sometimes called the Blue-headed Vireo. It has a broad white mark round the eyes and across the bill; the under parts are white, with slight brownish-green on the sides, shading to pale yellow.

The Plumbeous Vireos (*V. plumbeus*) take the place of the Solitaries from the central plain to the Pacific coast. They can hardly be mistaken, for the Plumbeous are much greyer, with a grey back and head, rather brighter on the crown, the same white eye-line as the Solitary, but a darkish loreal stripe is added. They are nearly white underneath, with a very little brownish-green shading; they have white wing-bars and white lines on the dark wings and tail.

I do not know this bird's nest. Its voice is very much like that of the Solitary. The Plumbeous Vireos are very common in Colorado and Montana and in the southern Rockies. Some ornithologists consider this bird only a local variety of the Solitary, but it looks decidedly different, at least in colouring, as it appears so much more "slatey" and grey.

One of the prettiest members of this family is the White-eyed Vireo (*V. noveboracensis*). It is also olive-grey, but its colour is much more distinct and brighter than most of its relations. It has bright yellow "spectacles," and the dark feathers of its wings and tail are edged with clear yellow. It may always be easily distinguished by its curious white eyes and almost black legs and feet.

Its song, though of course not nearly so loud, is much like that of the Mocking-bird, as it imitates the notes of all sorts of other birds, and mixes them up together with a peculiar and sweet little song of its own. It also has an angry and most emphatic note when frightened or disturbed, like that of an English Robin in a rage.

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The White-eyed Vireo sings in gardens, and among the bushes and undergrowth of woods. The lazy Cow-bird often deposits its "cuckoo" egg in the nest of these small birds, who patiently hatch it out, and feed and rear the big greedy interloper at the expense of their own nestlings.

Another more brightly coloured bird is the Yellow-throated Vireo (*V. flavifrons*), with—as the name implies—a bright yellow throat, and breast, fading to white below; and an olive head and back, gradually merging into bluish toward the tail. Bright yellow rings round the eyes give it a very knowing look. It has two white wing-bars, and some white-edged feathers in its dark tail. It is a rather more heavily-built bird than the other Vireos, and its song is somewhat monotonous—an often-repeated, persistent, rather melancholy note.

In the branch of some tree overhanging a stream or river, its beautiful and elaborately-made hanging nest is placed, cleverly and skilfully woven and slung from the outermost and quite inaccessible fork. It may be seen, but it cannot be reached; you may "look, but you mustn't touch," so safely is it placed out of harm's way.

There are several other members of this interesting group, but unfortunately I have not had the time or the pleasure of watching them carefully. Among them are the Brotherly-love Vireo (*V. philadelphicus*), rather a rare bird; and the Grey Vireo (*V. vicinior*), which is perhaps a local variety of Plumbeous, said to be only found in the State of Arizona. It is much paler than the Plumbeous. Perhaps this peculiarity may be owing to the arid nature of the district it inhabits, as the Egyptian and other deserts seem to produce pale varieties of birds whose colouring is deeper and more defined and distinct in more fertile lands.

Hutton's Vireo (*V. huttonii*), which I have not seen, is said to be peculiar to Southern California.

The Least Vireo, also I fear a stranger to me, is much the same size as Bell's Vireo; it is said to be found only in the southwestern States. I am told it has a much longer tail in proportion to its size than any others of the family.

Once, owing to a breakdown on the line, we were delayed for some time many miles from any habitation on the borders of New

Mexico and Texas. The country on either hand was undulating and rather treeless, but there was plenty of scrub, and big bushes which might almost have ranked as trees. The ground, as far as the eye could see, was carpeted with flowers—blue lupins, yellow escholtzias, crimson verbenas, and hundreds of others—and “among the buds and blossoms” there were plenty of birds.

I fear most of our fellow-travellers were very much bored by the delay, but I was delighted, for an hour or two in this paradise of birds and flowers was a chance in a lifetime! After a short stroll along the track I sat in the shade of the “observation” platform, and watched Scissor-tailed Tyrants, and many other delightful “winged things,” flitting about in the sunshine. One small bird was flying from bush to bush so close to me that I could see every detail of his form and colour quite distinctly. I watched him for several minutes before he flew farther afield. I noted at the time the following description: “Small bird (about five in.), I don’t know him at all; colour olive-green, white breast shaded with greyish-green on the sides. Top and sides of head black, legs rather dark. Bill like a Vireo or Shrike.” It was not till many months later that I was able to compare my note with any book on birds. The only description I could find that tallied with it, and, in fact, gives every detail, is Dr. Coue’s description of the Black-headed Vireo (*V. atricapillus*), of which he says only three specimens are known! He gives the locality as “south-west Texas.” Perhaps it is within the range of possibility that the small fellow I watched and noted from the train that lovely April day was a fourth specimen of this extremely rare bird?

I only mention this little incident to show that any observation of birds *may* be “worth while”; there is always a chance that something rare, or even something new, may be noted in such lucky moments. A bird-lover must always go about with open eyes and open mind; we never know what delightful surprises may be in store for us, or what little link we may add to the chain of bird history and bird lore.

THE RED-CROWNED PIGEON (*Alectrœnas pulcherrima*).

By M. JEAN DELACOUR.

(Translated from the French.)

Following on the articles by Dr. Graham Renshaw and Mr. Meade Waldo, I write for the 'Avicultural Magazine' upon these

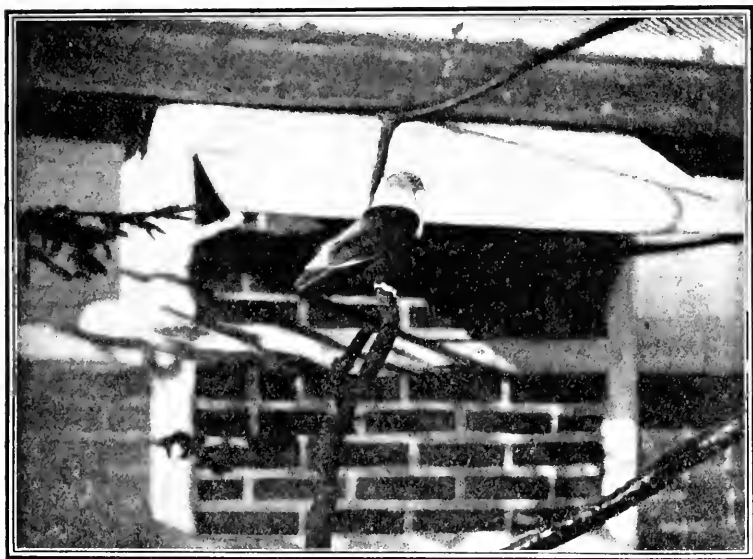


Photo. by J. Delacour.

RED-CROWNED PIGEON (*Alectrœnas pulcherrima*).

curious Pigeons, in order to show how they live in my aviaries at Villers Bretonneux.

I received four Red-crowned Pigeons (*Pigeons hollandais*) in the spring of 1914, three males and one female, which were in fairly good condition, although evidently worn by their voyage, during which they were unable to receive proper nourishment.

I installed them in an aviary in the heated corridor, where they settled on a branch, nestling one against another, preening and

arranging their feathers, and only leaving their perch to fly to the food-tray, from which they ate greedily and copiously of rice boiled in sweetened milk, with bananas and other fruits cut into small pieces. The birds very soon recovered from the effects of the voyage, so that I was able to exhibit a pair at the show which we organised in June, 1914, at the Jardin d'Acclimatation, in Paris.

Indeed, the Pigeons regained their health so much that I found their aviary in a state of confusion one morning; one of the male birds was hunting and knocking his companions about, who, frightened, were crouching in the corners. This seemed to me curious, considering that up till then the three males appeared to be the best of friends and apparently attached to each other. I removed the aggressor, but the two remaining Pigeons fought, so that I had to place each one in a separate flight.

I then made an attempt to put the female with each of the males in turn, but without success, for she would have been quickly killed had I left her to the fury of their attack on her.

Each of the four birds was consequently put by itself at the time that the war broke out.

For a year I saw them no more!

When I had my first leave home, in July, 1915, I found that one of the Pigeons had died, whilst the others appeared to be in very bad health, their plumage and their bills soiled. I at once put them in an open-air aviary communicating with a heated compartment, and had the satisfaction of seeing them benefiting by the change after a few days.

Since then the three Pigeons (two males and one female) have remained in that aviary in perfect health; from November to April they lived in the heated compartment, the door of which was left open, and I feel certain that fresh air and space is absolutely necessary in order to keep them in good condition.

Unfortunately it has been impossible to leave the female with one of the males, and consequently one has no hope of their breeding.

These Pigeons are sluggish and remain sitting on the branches of trees, which they leave only to feed or to hunt their companions in the aviary.

Their characters are not attractive, although they are not dangerous to other species of birds, for their wings are too feeble. One never sees them on the ground.

The moult affects them but little in appearance, and their plumage is superb throughout the year; amongst foliage they have a fine effect with their blue bodies, pearl-grey tails, and red heads. I have never heard them coo. I have now had them for over three and a half years in captivity.

SOME BIRDS OF THE BALKANS.

By Capt. BERNARD E. POTTER.

(Written for the 'Balkan News.')

The Bee-Eater is a beautiful bird and one that is new to many of us. In July last I passed each day quite close to a nest in the bank of a stream, with a large round hole for entrance. Just beyond were some tents, but the birds were never scared away. They appear to be about the size of starlings. Their flight is graceful and swallow-like. They fly high in the air and might easily be mistaken for swallows, with their quick flutter of wings and gliding motion.

The bill of this bird is black, very long, straight, and sharp-pointed. The head is a fine bronze colour, the body green and blue, the wings a light brown tinged with green. Watched from below the wings and tail look almost transparent. I saw one newly-fledged young bird at the entrance to the hole leading to the nest; with head turned aside it awaited in eager expectation its parents seen skimming the air high aloft. In their bills I have distinguished what might be large moths or beetles.

The shallows and marshes of Lake Butkovo and its river are favourite resorts of water-fowl. Great Herons can be easily approached. They are very tame, as most of the birds of this country are. They lack the blue-grey colouring and head plumes of our British Heron, but the former are larger and taller. They are of a whitish-grey colour with black wings and dark markings on the

breast. With the Herons are tall, wholly white birds—Egrets; their glittering pure white plumage makes them easily distinguishable a great way off.

THE STORKS.

In March last many of us had seen between Lake Langaza and the ancient baths beyond, the great nests of the Storks reared upon stunted elm trees or the chimney of a deserted cottage. It was somewhat later that the birds themselves put in an appearance. At first they used to be seen flying high over Lembet camp. In flight the head and neck are extended, whereas in the case of the Heron the neck is always retracted. In both cases the long legs trail behind. A curious sight may be witnessed at Lozhishta, near Lake Butkovo. Above the green slope upon which used to squat the Turkish men-folk, are three ancient dwarfed elms. Upon the two side ones are huge piles of sticks whereon sit or stand as many Storks as can crowd together, quite tame, having never been molested, it being likely they are held in some kind of awe by the natives. In the middle of the group in the evening the priest stands aloft as he calls on the faithful for prayer in shrill piping tones. The elm in this remote village of the plain had been adopted for use as a minaret. A ladder gave access to the "pulpit," around which was a rude palisade. The men below appeared to smoke and dream, taking as little notice as did the stork families.

In May we first used to see the blue birds which are about the size of Jays, and often called Blue Jays. This is the Roller. The first pair I came upon was perching on a fig tree down a gully—the vivid colours harmonised to perfection with the green leaves of the fig tree. Besides the general bluey-green hue about the wings and back, the soft brown of the body makes a fine contrast. In flight the blues of tail and wing are conspicuous.

THE HOPOE.

The Hoopoe is frequent in Macedonia. One I recollect seeing in June along a high hill track on the grass. It immediately lowered the remarkable head plumes till the feathers formed a point behind, giving the bird the grotesque appearance of having a beak

fore and aft. These birds are evidently shy and prefer lonely and deserted hamlets. One flew out from under the eaves of a house as I passed, and later I disturbed one from the village close by from which the inhabitants had just departed. Its general colour is a bright chequered buff and grey.*

Following one day the stream which leads up from the Butkovo plain I came upon a solitary dipper, sometimes known as the Water Blackbird or Ouzel. Though by no means rare at home, yet few people other than fishermen seem to be acquainted with it. This specimen was sitting on a rock in the middle of the stream and executed its comical bobbing bows before flying upstream. A puzzle to naturalists is the power which the dipper has of running about under water on the bed of a stream as it searches for its insect food.

One day a Weaver Bird's nest was handed to me.† This is oval in shape, with the larger end upwards, where at one side is the entrance 1 in. in diameter. It was made of the fluff of a species of willow having the texture of thick, closely-woven felt. It had been hanging from an outstretched bough only a foot or two above the water.

The Black-headed Tern is common along the Struma plain. It resembles a small sea-gull, from which, however, it is easily distinguished by the long marked tail. It often dives from a height upon its quarry, a small fish, imitating in miniature the great plunge into the sea of the Gannet or Solent Goose.

At the time of writing several of the smaller birds were with us about the low thorn bushes. The Wheatear, with its snow-white feathers above the tail, and the Stone-Chat, with its jet-black head, could be observed. The former dips down to hide when disturbed, but the latter always chooses the topmost twig. Another larger bird is of a general bronze colour, especially the male—a species of butcher bird which feeds on the ubiquitous grasshopper.

Pelicans are quite common. Lately I made out a great flock containing many hundreds. They were wheeling about leisurely as if wishing to descend but were prevented by the sight of the military.

* [The Hoopoe, when flying, shows a great deal of black and white.—ED.]

† [Surely there is no true Weaver Bird in the Balkans. May it not have been the nest of the Penduline Tit?—ED.]

Their flight formation is that of the letter V, but the limbs of the V are not so long nor yet so regular as obtain with the Geese, to which family the Pelicans belong.

Tamed specimens of the Kestrel, Little Owl, and even a great Eagle have surprised me in several camps. In their changed state they seemed to live contented lives, not far removed, as a rule, from the camp cookhouse.

BIRDS OF THE SOUTH.

[From the 'Sydney Daily Telegraph,' November 3rd, 1916.]

Supplied by Mr. R. COLTON.

You must go a long way nowadays to find the birds, except just here and there, where some sanctuary has been kept for them almost by force, for the rifle and gun of the bird-hunter are ruthless, and only fear of the arm of the law saves the wholesale destruction of these soft-winged, soft-hued creatures, who, like the flowers, bring a sweet touch of divine harmony into the restlessness of life.

Many of the smaller birds of the coast you will find close to home, even in suburban gardens, the Jacky Winter, Coach Whip, Peewee, the Starling, the Yellow Robin, the Blue Wren, and others of varied species, but for a glimpse of the rarer larger birds at ease in crowds you must travel far afield.

Bird life retreats farther from human outlook year by year. Even on the Southern Road, near Picton, Thirlmere, and Mittagong, where, two years ago, bird life was fairly abundant, you may travel far and notice little. For there has been so much temporary settlement round about. Hundreds of little homes and camps pitched round deviation works have meant the loss of beauty spots, and with these their bird life. On the hills round Bowral and Berrima you may first notice the beautiful Rosellas and Lorys coming near less timidly, crowds of Blue Martens, Goldfinches, and Dollar Birds, with abundant Diamond Sparrows, Redheads, and other smaller varieties,

Magpies, Hawks, etc. Out from Goulburn, just now, on the road to Lake Bathurst and Tarago, the fields and undulating plains are one mass of shining green, and all the wealth of pasture land and bird life lies close to view. Acre after acre and mile after mile of meadow, sheltering thousands of sheep and soft new white lambs, wealthy homesteads well back in the broad acres, and bird life full of sheen and brightness—the big silvery Grey Crane, the Blue and Scarlet Rosella, the Green Parakeet, the Dollar Bird, and Plover darting in and under the hedges that are heavy with the sweet fragrance of wild briar in October. As you come to the more thickly-wooded land round Tarago and Braidwood, the flocks of larger birds increase, White Cockatoos hover over the tall treetops. Braidwood is a pretty little town of decadent glory and largely deserted, for gold and tin mining no longer flourish as in the old days, new and more payable centres having been discovered. But on the thickly-timbered roads towards the coast the white, shining quartz lies in heaps by the roadside, and you can still see the gold dredges at work and the races made in the old-time days for sluicing the gold out of the hills. On these hills the Parrots are glorious, King Parrots in scarlet and green, flocks of Gang Gangs, scarlet crowned with bodies of slate grey, Lorys, Parakeets, and Rosellas in colours of rich crimson and pale blue, cerise, purple, turquoise, emerald, scarlet, yellow, or eau-de-nil, flashing in and out of tall trees their beautiful sunlit glory, and finding a beautiful setting in the long red road with the little white bridges over streams fringed with drooping willows and backed by big purple mountains.

Between the ranges and the coast you see the Bronzewing Pigeon now and then, the Blue Pigeon growing scarcer each year, and in the gullies you may hear the music of the Lyre Bird that has escaped the prowling depredations of Master Reynard.

At Bateman's Bay, the Clyde River flows in a broad expanse to meet the ocean, and a flock of black and white Pelicans fly over like miniature aeroplanes, while scarlet-footed, scarlet-beaked Seagulls in utter fearlessness, ride triumphantly over surf and storm wrack. Farther south, they tell us, you may come by chance on the little silvery "ting ting" note of the Bell Bird, immortalised in Kendall's ode to September, But year by year, despite laws for their protect-

tion, bird treasures are harder to see and rarer to find.* One cannot bear to think of a day when these beautiful creatures will be lost for ever, for there is nothing that adds more beauty and sweetness to our homeland bush than the voice and the presence of Nature's sweet singers.

FIDELIS.

SOME NOTES ON THE BLACK-FACED IBIS (*Theristicus melanops*).

Hab. S. America.

By F. E. BLAAUW.

Black-faced Ibises have always had a great charm for me, and off and on I have kept one or more specimens of these beautiful birds during the last fifteen or twenty years, but I only succeeded in breeding them last season, 1916.

When I went to South America in 1911, I of course hoped to see my favourites in their native country, and twice I had the good fortune to come across them.

I was riding from Los Sauces to Purén, in Southern Chile, and there, in a green meadow along a small stream some of these beautiful grey birds with buff head, neck, and underside, and delicate pink legs were walking amongst a small flock of Andean geese (*Bernicla melanoptera*). The second time I saw some was more to the south, between Puerto Octay and Puerto Montt.

I was riding along some enclosed fields over a road that was more a series of holes than anything else, and there quite a large flock of some forty blackfaced Ibises had alighted and were busy probing the ground for grubs.

In *Tierra del Fuego*, on the *Zente Grande* estate, I did not see the birds, but I saw deserted nests of this species.

* [We do not know whether Australia encourages such societies as the Audubon Society in the United States, and the teaching in schools to the children. Nesting-boxes for Parrakeets, etc., should be put up by everybody who can do so.—ED.]



BLACK-FACED IBIS (immature)
(*Theristicus melanops*.)

They were built on poles that for some purpose or other had been put on the margin of one of the lakes, and I was told that this was a very favourite nesting site.

In *Punta Arenas*, on the *Straits of Magellan*, I saw a tame bird of this species which was kept by a professional gardener in his yard, who told me that he had reared it from the nest and was keeping it for a monk in that same town, who wanted to stuff it when it had acquired its full plumage, to put it into his museum.

As I chanced at the time to have one bird of this species alive at home at Gooilust, I had an interview with the monk in question and asked him to sell me the bird and not to stuff it! After some talking, he kindly yielded to my petition, and I had it sent home to me. It is this bird that bred with my other one last summer, as fortunately my old bird was a female, and the newcomer a male.

I keep my pair in a large flight aviary with some water in it and some bushes, and on one of those my birds built a nest of sticks in which they laid eggs, which they incubated in turn.

After some weeks a young bird was hatched, but it grew very slowly, and after a couple of weeks was found dead on the ground. It was about the size of a plucked Pigeon, and almost as naked.

Not long after this the birds laid again, but eggs or young ones completely disappeared.

This made me rather impatient, and I resolved to interfere if the birds should lay again.

I was in luck; two eggs were laid in the same nest, and these I took away and put under a bantam hen.

After an incubation of about twenty-eight days one of the eggs hatched, the second one being clear.

We left the baby one day under the hen and then my bird-keeper took charge of it, putting it into a basket with woollen blankets and a hot-water bottle.

We fed the bird with mashed raw meat and bread and milk, and when it grew bigger also with small fish.

The little creature was nearly naked when it hatched, with only a very few bits of down. It had a short bill and little flesh-coloured legs.

The black throat lappet of the adults was present from the first.

As the little bird grew it became covered with down which was grey on the body but yellowish-white on the head, neck, and breast.

The legs now became of a grey colour with a slight purple tinge.

The bill, which was bluish white, began to grow in length.

After three weeks the feathers commenced to appear, and at the age of eight weeks the bird was fully feathered and could fly, being almost the size of the adults.

The first feather dress is similar to that of the adults in the breeding season, but the buff colour is not quite so brilliant and the grey feathers of the upperside have buff edgings.

The naked skin of the face is not black but bluish, also the bill.

The legs and feet are grey with a purple tinge.

The bird is in splendid condition, and I think that I owe a word of praise to my birdkeeper for the very perfect result he attained.

At first the little bird had to be fed from the mouth, but as he grew bigger he learnt to feed from the hand if it was held in a certain way. At two months it would take worms from the ground, but the meat and bread or fish had still to be given to it from the hand.

The eggs are white with *very few* buff spots and are very long in shape.

The third clutch consisted, as I mentioned above, of two eggs. How many eggs there were in the two first clutches I cannot tell.

In the breeding season the old birds have rich buff heads and necks, whilst in autumn, after the moult, these parts are nearly white.

RED-SHINING AND TABUAN PARRAKEETS.

SIR,

Our member, Mr. Colton, has kindly allowed me to make some notes on the subject of three rare Parrakeets—two Red-shining and one Tabuan—that he is expecting shortly to arrive in England. The

three birds were caught on a sugar plantation and brought to Australia. The Tabuan is an adult bird and very lively, dancing about the cage; this is contrary to the behaviour of most Tabuans, who as a rule sit very still and quiet.

The two Red-shining Parrakeets are an old and a very young bird. The latter (at the time of writing, November 23rd) was only about eight weeks old, and was still on soft feed, soaked biscuit, boiled rice, and beginning to crack canary-seed for itself. A letter, dated a week later, says the bird is fully on seed; its diet being canary, hemp, sunflower, cracked maize, and dry biscuit. Though so young, this Red-shining Parrakeet was as large and brightly-coloured as the adult bird, but in the latter the beak and claws are black and there is a bright orange ring round the eyes as in the King Parrakeet. In the young bird the beak and claws are yellow and the eyes a dull black.

A little boy of four, the son of Mr. Colton's friend, made a great pet of the young bird, whom he called "Shine," and within a few days of his arrival the Parrakeet would follow the child about the yard for soaked bread, waddling in the quaint way these Parrakeets do.

The Red-shining is a very large and handsome Parrakeet, with a long broad tail. It differs from the Tabuan in being red (on the head, neck, and underneath) where the Tabuan is maroon, and has a bright blue band round the back of the neck that the Tabuan lacks. I have not kept either of these birds, but I have kept the Masked Parrakeet that is nearly allied, and a more beautiful or delightful pet than "Dick" would have been hard to find, and he was also singularly intelligent.

Faithfully yours,

ROSIE ALDERSON.

TAMENESS OF CAPTURED WILD BIRDS.

The Duchess of Bedford writes: "A few years ago, in very hard frost, a Grey Wagtail persistently came and pecked at the windows and was always flying in somewhere. I caught him and put him in an 18 x 12 inch cage. He took mealworms

from my hand from the first, was never the least flustered, used to clean himself when I was close by the cage, and I let him out quite well and happy when the frost broke."

I caught a cock Blackbird in a stable in the first week of February which looked half-starved and put him in a cage, where he at once began to eat and drink. The next morning his feathers were tight and he looked as well as possible, in spite of having lost flesh. When I put my hand in the cage he sat perfectly still in a composed manner and pecked at my fingers. He has never once attempted to flutter against the bars or show signs of wishing to get away, and on the third day after being caged he had a bath.

The Duchess of Bedford also relates a very interesting fact of her experience with a Storm Petrel. The Duchess writes: "My sailors on the yacht always keep for me any birds which fly against the lanterns at night. As has often happened, they saved for me a Storm Petrel. As a rule I had released these birds at once by daylight and they dropped into the sea, where they floated away, and I expected were more or less injured. This one, however, I thought I would keep till night to see what would happen. I took it out of the basket that morning and offered it its liberty. The bird crept on to my forefinger and started to clean itself; it lifted its wings to preen underneath, scratched itself, and was absolutely at home. As I could not feed it, and seeing that it was obviously quite well, I held it out on my forefinger over the bulwarks, but every time I did so it crawled back up my arm. So I kept it till dark and then tried again. It was off like a shot!"

H. D. A.

CHANGE OF COLOUR IN BLUE WREN (*Malurus cyaneus*) AS AFFECTED BY SEASONS.

By HUBERT D. ASTLEY.

In July, 1914, I became the possessor of four Australian Blue Wrens, the males being in eclipse plumage, since they arrived in their winter time. That same autumn they partly donned their beautiful spring colouring of black velvet and turquoise blue silk.

Unfortunately all but one died, but that one bird (a male) I still possess in February of this year.

During 1915, after losing his breeding plumage, this little bird remained in eclipse for two years—that is, for most of 1915 and throughout 1916—although he moulted his feathers. Before Christmas-time of 1916 a very few blue feathers appeared on his cheeks, so that I thought he was in for a change, but there was a lull of some six or seven weeks, during which period the Wren remained as before. Then, suddenly, in the end of January a complete moult began, the blue and black feathers appeared rapidly, the tail, etc., was moulted.

It has apparently required time for the bird to adjust itself to the seasons on the other side of the earth to that on which he had been. Nature could not change all in a moment; a bird who is a native of Australia, where spring time is autumn in Europe, and *vice versâ*, cannot be affected at once in another hemisphere in the donning of a breeding colouring; hence this total eclipse for about two years, after which it would seem that things are once again adjusted according to the correct seasons. This may not, of course, always be the case, but it certainly has been so in this one.

It is interesting matter for investigation, and perhaps other members could write on the subject.

REFERENCE LIST OF COLOURED PLATES OF THE PARROTS.

By Dr. E. HOPKINSON.

(Continued from p. 127.)

Tanygnathus everetti, EVERETT'S PARROT.

B.M. Cat., xx, pl. 10.

T. burbidgei.

B.M. Cat., xx, pl. 11.

Palæornis eupatria, CINGALESE ALEXANDRINE PARRAKEET.

N.L., xviii, 92, pl. 2.

P. wardi, SEYCHELLES RING-NECKED PARRAKEET.

E. Newton, Ibis (1876), 283, pl. 6.

P. torquata, RING-NECKED PARRAKEET.

Cass., 431, pl.

Russ, iii, 296, 845, pl.

P. docilis, AFRICAN RING-NECKED PARRAKEET.

Swainson, B.W. Afr. (Nat. Lib.), 1837, frontispiece.

P. cyanocephala, BLOSSOM-HEADED PARRAKEET.

Gould, Bds. of Asia, vi, pl. 2.

Russ, iii, 336, 849, pl.

P. rosa, BURMESE BLOSSOM-HEAD.

Gould, Bds. of Asia, pl. 3.

P. finschi, BURMESE SLATY-HEADED PARRAKEET.

B.M. Cat., xx, pl. 12 (cock and hen).

P. exsul, RODRIGUEZ PARRAKEET (? extinct. /H. L.).

A. Newton, Ibis (1875), 342, pl. 7.

P. peristerodes, MALABAR PARRAKEET.

Jerdon. Ill. Ind. Orn., pl. 18.

Cass., pl., p. 433.

P. calthorpeæ, LAYARD'S PARRAKEET.

Legge, B. Ceylon, pl. 6.

P. caniceps, BLYTH'S NICOBAR PARRAKEET.

Seth-Smith, Parrakeets, pl., p. 118.

P. nicobarica, NICOBAR PARRAKEET.

Gould, Bds. of Asia, vi, pl. 6.

Seth-Smith, Parrakeets, pl., p. 118.

P. alexandri, JAVAN PARRAKEET.

Russ, iii, 319, 846, pl.

P. longicauda, MALACCAN PARRAKEET.

N.L., xviii, 95, pl. iii.

Polytelis barrabandi, BARRABAND'S PARRAKEET (Greenleek).

Gould, B. Aust., v, pl. 15.

Seth-Smith, Parrakeets, pl., p. 122 (cock and hen).

N.L., xviii, 89, pl. 1.

P. melanura, ROCK PEPLAR PARRAKEET.

Gould, B. Aust., v, pl. 16.

Russ, iii, 151, pl.

Av. Mag. (1912), 265, pl. (cock and hen).

P. or Spathopterus alexandræ, QUEEN ALEXANDRA PARRAKEET.

Gould, B. Aust., Suppl., pl.

Av. Mag. (1899), v, pl., p. 168.

B.N. (1911), pl., p. 217.

Ptistes erythropterus, CRIMSON-WINGED PARRAKEET.

Gould, B. Aust., v, pl. 18.

Cass., 439, pl.

Aprosmictus cyanopygius, KING PARROT.

Gould, B. Aust., v, pl. 17.

Cass., pl., p. 441.

Russ, iii, 144, 828, pl.

Pyrrhuloxia splendens, SHINING PARRAKEET.

Greene, Parrots in Captivity, iii, pl. /S. S.

Psittacella picta.

Hartert, Ibis (1897), pl. iii. /H. L.

Psittinus incertus, BLUE-RUMPED PARRAKEET.

Shaw, Nat. Misc. (1807), 18, pl. 769.

B.N. (1913), 127, pl. (cock and hen).

Bolbopsittacus intermedius.

B.M. Cat., xx, pl. 13.

Agapornis cana, MADAGASCAR LOVEBIRD.

Milne-Edw. and Grandidier, Hist. Madag. Ois., pl. 7.

Cass., 442, pl. 1.

Russ, iii, 416, pl.

A. taranta, ABYSSINIAN LOVEBIRD.

Less., Ill. Psitt. (1832), pl. 39.

Av. Mag. (1910), xxiii, pl. (cock and hen).

A. pullaria, RED-FACED LOVEBIRD.

Reichen., Vogelb., pl. 20, fig. 3.

Cass., 441, pl.

Russ, iii, 395, 850, pl.

A. fischeri.

Reichen., J. f. O. (1889), pl. 4, fig. 1.

A. liliane, NYASSALAND LOVEBIRD.

Shelley, Ibis (1894), 466, pl. 12. /H. L.

A. personata.

Reichen., J. f. O. (1889), pl. 4, fig. 2.

A. roseicollis, PEACH-FACED LOVEBIRD.

Reichen., Vogelb., pl. 20, fig. 1.

Russ, iii, 403, pl.

A. swinderemiana.

Cab., J. f. O. (1877), pl. 5, fig. 2.

N.L., xviii, 138, pl. 11.

A. nigrigenis, BLACK-CHEEKED LOVEBIRD.

Av. Mag. (1908), 206, 317, pl.

Loriculus chrysonotus, GOLDEN-BACKED HANGING PARRAKEET.

Seth-Smith, Parrakeets, pl., p. 154.

L. exilis.

Rowley, Orn. Misc., ii, pl., p. 243.

L. regulus.

Rowley, Orn. Misc., ii, pl., p. 238.

L. indicus, CEYLONese HANGING PARRAKEET.

Legge, Birds of Ceylon, pl. 6.

L. galgulus, BLUE-CROWNED HANGING PARRAKEET.

N.L., xviii, 187, pl. 24 (may = *L. vernalis*).

Russ, iii, 800, pl.

L. selateri.

Seth-Smith, Parrakeets, pl., p. 154.

L. quadricolor.

B.M. Cat., xx, pl. xv (cock and hen).

L. stigmatus, RED-FRONTED HANGING PARRAKEET.

Rowley, Orn. Misc., ii, pl., p. 250.

L. amabilis.

B.M. Cat., xx, pl. xiv.

L. catamene.

Rowley, Orn. Misc., ii, pl., p. 236.

L. aurantiifrons.

Rowley, *t. c.*, pl., p. 376 (= hen).

L. tener.

Rowley, *t. c.*, pl., p. 376 (= hen).

Platyecircus mastersianus (a var. of *P. elegans*).

P.Z.S. (1902), pl. 19. /S. S.

P. elegans, PENNANT'S PARRAKEET.

Gould, B. Aust., v, pl. 23.

Seth-Smith, Parrakeets, pl., p. 159.

N.L., xviii, 193, pl. 25.

Cass., pl., p. 441.

Russ, iii, 130, 826, pl.

P. adelaidae, ADELAIDE PARRAKEET.

Gould, B. Aust., v, pl. 22.

P. flaveolus, YELLOW-RUMPED PARRAKEET.

Gould, B. Aust., v, pl. 25.

Seth-Smith, Parrakeets, pl., p. 163.

P. flaviventris, YELLOW-BELLIED PARRAKEET.

Gould, B. Aust., v, pl. 24.

P. pallidiceps, MEALY ROSELLA.

Gould, B. Aust., v, pl. 26.

N.L., xviii, 196, pl. 26.

Cass., 436, pl., p. 429.

Russ, iii, 124, 826, pl.

P. amathusia, BLUE-CHEEKED ROSELLA.

Gould, B. Aust., Suppl., pl. 63.

P. browni, BROWN'S PARRAKEET.

Gould, B. Aust., v, pl. 31.

Av. Mag., viii, pl., p. 212 (cock and hen).

Seth-Smith, Parrakeets, pl., p. 168.

P. erythropeplus, RED-MANTLED PARRAKEET (a hybrid between a Pennant and Rosella ; see Seth-Smith's Parrakeets).

Salvadori, P.Z.S. (1891), pl. 12.

P. eximius, ROSELLA.

Gould, B. Aust., v, pl. 27.

Cass., 436, pl., p. 429.

Russ, iii, 118, 826, pl.

P. splendidus, YELLOW-MANTLED PARRAKEET.

Gould, B. Aust., v, pl. 28.

P. icterotis, STANLEY PARRAKEET.

Gould, B. Aust., v, pl. 29.

P. xanthogenys, YELLOW-CHEEKED PARRAKEET.

B.M. Cat., xx, pl.

Porphyrocephalus spurius, PILEATED OR RED-CAPPED PARRAKEET.

Gould, B. Aust., v, pl. 32.

Av. Mag. (1911), pl., p. 285.

Barnardius barnardi, BARNARD'S PARRAKEET.

Gould, B. Aust., v, pl. 21.

Seth-Smith, Parrakeets, pl., p. 183.

B. semitorquatus, YELLOW-NAPE PARRAKEET.

Gould, B. Aust., v, pl. 19.

Russ, iii, 139, 827, pl.

B. zonarius, BAUER'S PARRAKEET.

Gould, B. Aust., v, pl. 85.

Seth-Smith, Parrakeets, pl., p. 189.

B. macgillivrayi (North).

Sclater, Ibis (1902), pl., p. 610.

Psephotus hæmatorrhous, BLUE-BONNET PARRAKEET.

Gould, B. Aust., v, pl. 33.

Seth-Smith, Parrakeets, pl., p. 193.

Cass, 437, pl., p. 433.

P. xanthorrhous, YELLOW-VENTED BLUEBONNET.

Seth-Smith, Parrakeets, pl., p. 193.

Gould, B. Aust. (cancelled), pt. ii. pl. 7 / Gould, Handbook, ii, p. 63.

P. pulcherrimus, BEAUTIFUL PARRAKEET.

Gould, B. Aust., v, pl. 34.

Cass., 437, pl., p. 444 (male, female, and young male).

Russ, iii, 96, 825, pl.

P. chrysopterygius, GOLDEN-SHOULDERED PARRAKEET.

Gould, B. Aust., Suppl., pl.

Seth-Smith, Parrakeets, 202, pl.

P. multicolor, MANY-COLOURED PARRAKEET.

Gould, B. Aust., v, pl. 35.

Seth-Smith, Parrakeets, 206, pl.

Cass., 437, pl. (male and female).

Russ, iii, 111, pl.

P. hæmatonotus, REDRUMP PARRAKEET.

Gould, B. Aust., v, pl. 36.

Cass., 437, pl., p. 439.

Russ, iii, 101, pl.

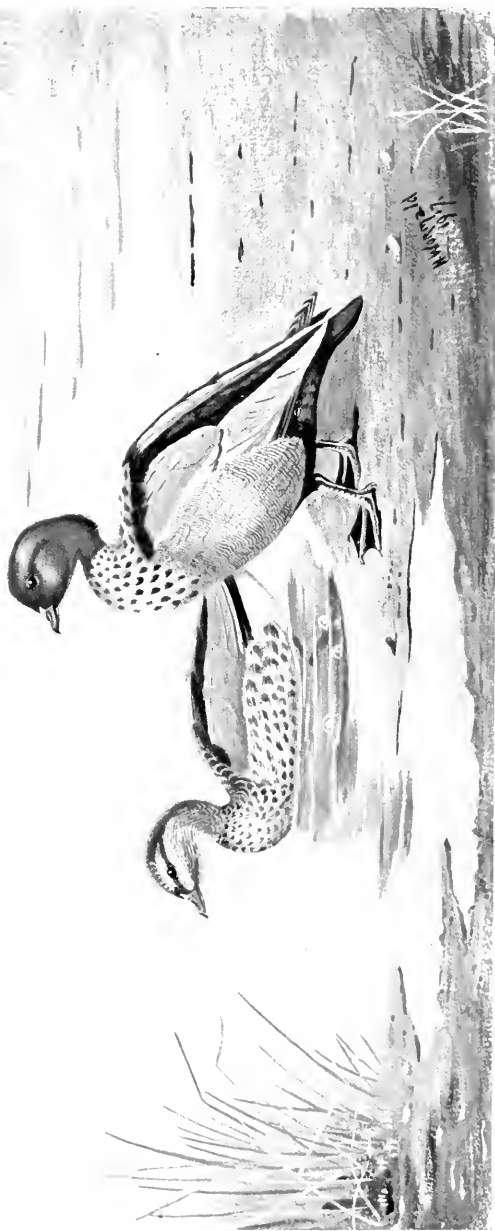
(To be continued.)

NOTES.

Mr. Allen Silver (London Regiment), who up till recently was a member of the Society, an enthusiastic aviculturist, and a contributor to the Magazine, has, we greatly regret to record, been so seriously wounded that it has been necessary to amputate his right leg. He has written to the Editor with that wonderful spirit of cheeriness and pluck which possesses our soldiers, telling him of birds he saw on the battlefields in France, and adding "All being well, I shall have to start aviculture again one day, and then I hope to rejoin the Society." We are sure he will be warmly welcomed back. Amongst many of the more ordinary species of birds which he saw about the trenches, such as Robins, Wrens, Blackbirds, Woodlark, Meadow-pipits, etc., he mentions Grey Wagtails, which "often ran about on the ice in the shell-holes. There is also a dark little hawk, probably a Merlin, not bigger than a Missel-thrush, that is always in evidence, and sometimes comes over the top of a trench at such a rate as to set men dodging, thinking it is some missile."

Messrs. Witherby & Co. have been appointed European Agents for the 'Journal of the Natural History Society of Siam.'

The work is illustrated with plates and figures, and deals with all branches of the natural history of that country.



THE MANED GOOSE. MALE AND FEMALE. Hab.: Australia.

From a drawing by Hugh Wormald.

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THE MANED GOOSE (*Chenonetta Jubata*).

By HUGH WORMALD.

Our Editor has recently, on more than one occasion, mentioned his Maned geese,* and I can only enthusiastically concur with all the eulogies he has heaped on them. Unfortunately, like all Australian birds, they are very difficult to obtain now. Some six years ago I received a pair from Holland, and though they throve well and were given every inducement, they made no attempt to go to nest, and this in spite of the fact that they were always devoted to each other and exceedingly tame, I am induced to believe that they were too tame, for in my experience, *very* tame birds do not breed so easily as less tame ones. My pair always walked or swam to meet anybody who went near them, and immediately on reaching one the gander always drew himself up, threw his head back and uttered his rather feeble note. Like all geese they are great grass eaters—an advantage over most birds in these difficult times.

Apart from their very attractive ways, Maned geese, especially ganders, are very beautiful birds, being a mixture of soft greys and black, with deep brown head and brilliant green speculum, broadly edged with white; for eyes they have the best boot buttons. The females remind one rather of those of the Summer duck, the jet black abdomen and under tail coverts of the male give place to pure white in the female.

I am not aware that Maned geese have ever bred in this country, though in the spring of 1914 I watched with interest, not

* [This bird is known as the Wood Duck in Australia.—ED.]

unmixed with envy, a female continually going in and out of a nest-box in Kew Gardens, but I never heard that there was any result.

In 1905 Mr. Blaauw successfully bred this goose, and states that in their first plumage the young resemble the adult female, but the dark markings are not so well defined. The goslings in "down" must be singularly attractive little people

These birds, like Mandarins and Summer ducks, nest in hollow trees in a wild state, so no doubt require artificial nest-boxes in confinement.

I kept my pair with full wings for a year or more (and I believe Mr. Astley's birds were also full winged), but eventually I pinioned them in case of accidents; they seldom seem to take the trouble to fly, but I feared they might leave in the nesting season or fall a prey to the ever-present lout with a gun. This fate befel a pair of Carolina ducks which were brought up by their mother, and I never troubled to catch or pinion them. However they stayed about for two years; I missed the duck in the spring and was sure she was incubating, but could not find the nest. After a time she returned and I concluded she had lost her nest through some accident, and then heard that she had been "bolted" by a ferret from a rabbit hole at the foot of a tree and that the keeper had taken the eggs; this he denied, but I found out afterwards that he had taken the eggs (eleven) and hatched them under a bantam, but all the young ones died. Eventually the pair strayed away to a pond about four miles away where a shepherd saw them, went home and got a gun, shot them both on the water, and took them home and ate them! And this in pre-war days!*

A very fine adult male straw-necked Ibis was shot near here by a gamekeeper in July, 1916; it would be interesting to know where this bird had escaped from. He was sitting in a hedge close to the river when the keeper flushed him and was very wild, by the man's account. I saw the bird after it had been "set up" by a local artist in taxidermy, but it was not at all badly done.†

* [There never *have* been pre-war days for the birds, since mankind must needs be slaughtering them at all times and seasons!—ED.]

† [We hope this man was informed of the idiotic nature of his destructive action. He ought to have been fined, if possible.—ED.]

I fear I have rather wandered from the subject of these notes, but have very little more to add, for both birds died this winter, and now two skins are all that remain to remind me of two very charming pets.

ROBINS, AND SOME OTHERS.

By ROSIE ALDERSON.

Those of us who have their aviary in a country garden have almost invariably the chance of taming a wild robin, and thus adding a charming addition to their pets.

It is wonderful how a robin always seems to appear in *any* garden, though where he comes from it would be hard to say. In that most interesting book, 'Memoirs of a Surrey Labourer,' old Bettesworth, the gardener, thus gives his opinion on robins in general: "And it's a funny thing, wherever a man's at work there's sure to be a robin finds him out. I've noticed it often. If I bin at work in the woods, a robin'd come, or in the harvest field, jest the same. Hark at 'n twiddlin'! And by-'n-by, when his crop's full, he'll get up in a tree and *sing*." "The bird seemed to know him, and he used to call it his 'mate,' because it worked with him wherever he turned up the soil."

There are several legends about the Robin: here are two, both very beautiful. The first, I think, comes from Wales, where it is considered unlucky to cage a robin. It is said that the little bird was sorry for the souls in purgatory, and petitioned that he might be allowed to carry them water in his beak to assuage their thirst. His request was granted; and so strenuous were the Robin's efforts that the flames scorched his breast, and ever since it has been red.

The second legend is an old Breton one. It is said that a robin followed Christ up the steps to Calvary, and that the bird's breast became red in trying to extract a thorn from Our Lord's crown, in the hope of lessening His sufferings. "As a reward for the little bird's courageous sympathy, God apportioned to him for all time the mission of attaching himself to those who labour and suffer";

and that is why the Robin is always the companion of man when he tills the ground "by the sweat of his brow."

It is many years now since we came to this old house, and my earliest remembrance of a robin here is of one that made its nest in a wall that was being built when the house was enlarged. Possibly it was this same robin that was a special pet of the gardener's, and used to spend much of his time in the greenhouse, finally building a nest there. Later came the nicest robin we have ever had. His name was "Bob," and, though small, he was very bright and graceful; a great contrast to "Bess," his mate. She was a big bird, very heavily built, with a thick neck and a stolid toad-like demeanour. We did not much care for her, for she was a selfish bird and bullied "Bob" very much, whilst he was devoted to her, and was always most chivalrous when it came to that severe test of self-sacrifice—a mealworm.

Our garden is divided by an old yew hedge into two parts, and "Bob" was a top garden robin, for, as you will probably have noticed, Robins have each their own area, and to trespass is against etiquette and safety. Robins are hard fighters, but they generally seem to respect each other's claims and so preserve peace.

In time "Bob" grew very tame. If my sister or I went in the garden and held out a mealworm, simply calling "Bob," he would come swinging down from some tall tree, and could take the mealworm from our hand without alighting on the ground first. "Bob" followed us all over the garden, and when we worked there was always by us. In the nesting season he was very busy. I forget how many mealworms he could carry off in his beak at once, but I think it was about six. He always held them by *their heads*, and picked them up so that they stuck out alternately on each side of his beak. He was always very particular *how* he carried the mealworms, and generally had a hard struggle over picking up the last one, for he dare not open his beak wide for fear of dropping the other worms. This accident sometimes happened, and then he would patiently begin to gather them all over again, and having at last succeeded he would fly off with his pretty swinging flight to the nest.

Of course, as you know, the cock Robin feeds the hen before

the real work of nesting has begun. Many a time have "Bob" and "Bess" stood by me, she, stolid and greedy, opening her beak wide to be fed, and "Bob," looking so pretty and eager, picking up mealworm after mealworm and dropping them down her throat. He was such a generous little bird, and often, to test him, we would put down an odd number of worms, and it was always "Bess" who got the largest share.

I shall never forget a tragic little scene that happened one day as I was feeding the Robins. "Bess" had consumed a large number of worms, each one brought to her by "Bob," and at last she was quite satisfied. There was one worm left, and twice "Bob" offered it to her, holding it to her beak in a very coaxing way. But "Bess" was obstinate, she kept her beak close shut; she did not even seem to say "Thank you." It was a nice worm, and "Bob" evidently thought it a pity to waste it, so he ate it himself. Just as the worm was partly down his throat, "Bess" changed her mind and solemnly opened her great beak for the worm to be put down. But, alas! it was too late, the dainty was just disappearing and the look on "Bob's" face—evidently anticipating trouble to come—would have been amusing if one had not felt so sorry for him.

"Bob" came to a very sad end, after giving us all great pleasure for several years, and the fault was mine, which made the sorrow all the more bitter. We had been troubled with mice, and I had put a break-back trap in the porch (between the double doors) of an aviary near the house. On a shelf in the porch I kept the food for my outside flight of Barbary Doves, who used to come at meal-times to be fed. One day I took out the food and forgot, for the moment, to close the outer door. It was only open a minute or two, and suddenly remembering "Bob," who was playing about, I turned to close it, but too late, our little friend had slipped inside and was quite dead, caught by his beak in the trap. I am not ashamed to say I cried bitterly, for I felt by my carelessness I had murdered my pet. I missed him terribly, and for a long time took no special interest in other Robins. I had a miserable feeling that to tame another was only to court disaster.

But Robins *will* appear on the scene whether you want them

or not, and soon there was a pair in the lower garden that haunted the aviary door for food. One bird was much more friendly than the other, but the shy one was very intelligent, and when it saw me about would call its mate to come, though it dare not approach too near itself. I never knew what became of this pair, and our next robin was a single bird who also came to the aviary to be fed. We found out that he had a nest, built in an old can, in the wood that runs at the bottom of the orchard. After coming alone for some time this robin brought a young one, evidently just out of the nest, and brought for my special inspection. It was pouring with rain, and the poor little thing looked very draggled and miserable, but the father bird seemed very proud of it. A day or so after, when I went down to the aviary a most curious sight met my eyes, so curious that I should not have believed it unless I had actually seen it. Round the aviary door were a group of young Robins, five or seven—I forget now which—but I think the latter number, and outside the ring were the two old birds keeping the young ones in as a sheep dog does a flock of sheep. The young ones had been brought to see me, and to demand breakfast, but they did not understand, and were very restless trying to break away, and the parents had as much as they could do to keep the little group intact.

My first thought was for my camera, my second—what was the use! By the time I had gone back to the house and brought it my little friends would be tired and have gone. No; the best plan was to welcome and to feed them, and just to photograph the pretty scene on my mind. It was very strange, but these young Robins, and the parents too, all disappeared, and did not keep to the garden.

Another very nice robin was like “Bob,” a top-garden bird. We could always tell him, for his upper mandible was very badly broken off, and this accident looked like causing his death, for the poor little thing when first we noticed him could not *pick up* his food off the ground. We did not know *how* to help him—but as Charles Reade truly says, “there is a key to every lock,” and I discovered that if the mealworms were dropped on grass *that was not quite short* the robin could pick them up, whereas he was quite helpless on a hard level surface.

I really think we saved the bird from starvation by helping

him over a critical time, and he rewarded us by becoming very tame. He was always in and out of the dining-room, coming on the table for crumbs, or perching on a tall screen.* If the window was not open he would press his little red breast against the glass and beg to be let in. Once on Christmas Day he settled on the dish of plum pudding, looking for all the world like a Christmas card in real life, and after he was fed it was sweet to listen to his little song of thanks.

We had this robin about three years. I expect he came to a tragic end, for he was friendly at the houses of our neighbours, one of whom kept cats, and he was really too tame for his own safety.

My present robin lives down by the aviary. Every morning when I go down "Zit" is waiting for me. His favourite perch is a little apple tree by the door, and on New Year's Day he brought Mrs. Zit there too. They are both pretty birds, and much alike in looks. The hen has been several times since, but she is shyer than the cock.

"Zit" is a bold, impudent little thing; he slips into the aviary porch if I leave the door open, and perches on the watering-can outside waiting for me to come out. He follows me from one aviary to another, and does not care how close I come to him. I give him some ground pea-nut every morning, and what is very important in severe weather, a pot of fresh water—for birds want drink as well as food.

Besides "Zit" I have quite a little family of small birds who come in the apple tree to be fed. A few mornings ago there were altogether, besides the pair of Robins, a pair each of Great Tits, Cole, Blue, and Marsh Tits, one Starling, and a hen Chaffinch. "Zit" and the Great Tits have battles, and he sadly bullies my favourites, the little Marsh Tits, driving them off when they come to feed; but they only fly a few feet away, and cling to the bark of a tree, waiting their chance to try again. I find the Tits are very fond of sunflower seed, and it is very interesting to see the four varieties feeding together and to note the difference in each.

* [It is curious how superstitious many people are with regard to a robin coming into a house. A lady we know is quite alarmed, feeling sure it presage misfortune. Has this to do with the legendary connection of the robin and the Crucifixion of Our Lord?—ED.]

My brother is very fond of birds, and we have many interesting kinds in the garden, for he always encourages them. Only a few days ago (in January) a Great-spotted Woodpecker was in a tree close to the house, and we have had at different times the Green Woodpecker, the Tree Creeper, Nut-hatch, Golden-crested Wren, Kestrel, Pheasants, and Partridges, besides numbers of the more ordinary garden birds. I once counted a flock of seventy Green Finches all feeding together on summer rape-seed scattered on the lawn. Rape is a very good seed to give (the summer variety) as the Sparrows do not care for it.

On New Year's Day the Rooks were very busy in the wood, coming and repairing their nests, making one feel the winter was passing and that each day was bringing the welcome spring-time a little nearer.

[*Note, March 19th.*—Since writing the above one of the Great Tits has become very fearless and tame, following us all over the garden, and coming readily on our hands for food.]

MY MOREPORKS.

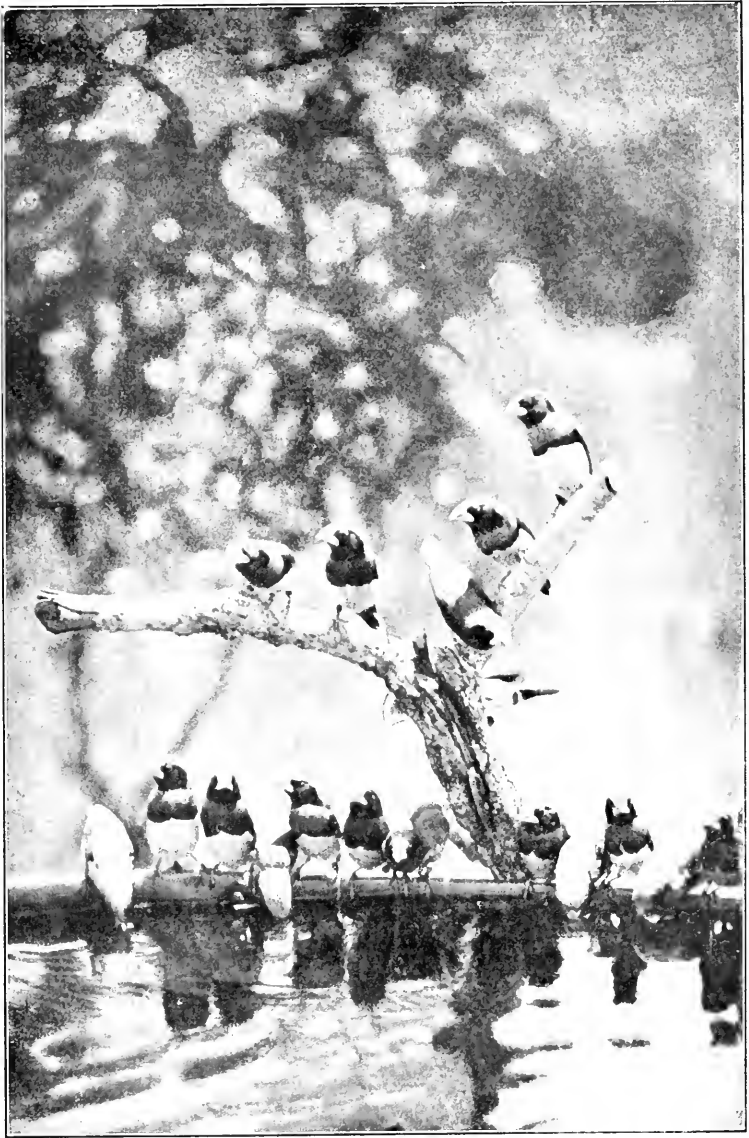
By AN OLD AUSTRALIAN BIRDLOVER.

The article by Dr. Renshaw on the Podargus in the October number of the 'Avicultural Magazine' has been very pleasant reading to me. These birds, known in Australia as Moreporks or Frogmouths, have been among my favourite pets for many years. At the present moment four of them are enjoying my enforced hospitality, greeting me each time I pass their cage. To see them behind their wooden gratings stretching their necks and opening their huge mouths is a funny sight indeed. I feed them in the morning just when I feed my other meat-eating birds, though being nocturnal they ought to be fed at night I suppose. They know the time and the plate, indicating their desire to be fed by low grunts. There is no trouble in keeping these quaint birds in captivity. When I open the door of the cage in which my birds are housed, they open their huge mouths immediately, anxious to receive the lump of meat which constitutes their daily meal. It is grabbed most willingly and gulped down in jerks. Once in a way they are treated

to a sparrow from which I have removed the sharp part of the bill and tail feathers. If not very hungry they pound the bird against the branch or perch ; more often they just gulp it down like meat. They are exceedingly fond of mice, and become quite excited when they see one ; but what they like, above all, are the big Elephant moths. Whenever I bring them one alive they will all try together to tear it out of my fingers, yet if dropped on the floor they will not pick it up. I don't quite see the necessity for soaking the meat before feeding, as Dr. Renshaw suggests ; I have had my birds for years and have never known them to have had a drink yet. The only time they ever see water is when it rains, and that is extremely seldom, and is out of their reach. When newly caught there is, of course, as with most meat and insect-eating birds a little trouble to induce them to take the food out of one's hands, but with a little patience and perseverance this shyness or obstinacy is quickly overcome. This trouble may be the reason why these birds are not kept even in the Zoos of Australia. Once quieted down, it just takes less than a minute to feed a bird ; it takes me longer, because I talk and play with my birds when I have time. Their mouth is very large and their looks most awe-inspiring, yet they could hardly pinch one's fingers, and are as peaceful as a dove. Their plumage has been described by Dr. Renshaw, but not their eyes, which are their point of beauty. These are of an enormous size and perfectly round. In the old birds the pupil is coal-black, the iris of a light old gold colour and very wide ; in the young birds the pupil is a dark blue and the iris a mottled yellow. There seems to be no difference in the plumage between the sexes ; the only way to distinguish them is by the iris, which in the male birds is adorned by an orange-brown ring round the edge of it, as with the Kagus. The eyes so motionless and full of lustre give one the impression as if they were of glass and certainly have neither the vicious or cruel impression one might expect from the general appearance of these birds. Generally the birds sit upright, owl-like, with the neck deeply set in the shoulders, yet they will often rest stretched out upon the limb upon which they sit, and in that attitude will close the upper eyelid, only giving the impression that they had just half an eye. When asleep they close both lids which are heavily coated with down. I love to see my

birds when in a temper or a fright, which I can always create by showing them a stuffed cat or dog. They sit then like a cat, with hunched backs, ready one might think for a spring, and with a terrifying expression—Mephistopheles is not in it.

They are no longer plentiful, but it is still possible to get them as they are most trusting birds, allowing one to come right up to them. Their call is a kind of booming noise emitted in quick succession. Years ago they were very plentiful in the district in which I am living. One would meet them any evening and anywhere on post or branch to which one was directed by their call. Now they are gone. The last of them probably joined the happy land last year. The long dry spell caused food for birds and animals to become very scarce, and as a consequence a pest of Flying Foxes visited the orchards and gardens in this and other districts. Guns and peairifles destroyed all on the wing, and the Moreporks went with the rest! Since then I have not seen *one*, although few know the bush as well as I do. A few years ago a pair of Moreporks, which had been about my home for a long time, made their nest in a tree close to my fence in the adjoining paddock. Built about 30 feet from the ground it consisted of a few sticks across the horizontal fork of a branch. When the bird was sitting on the nest it was quite impossible to distinguish her from the nest itself. The young in their first stages were covered with the most delicate creamy down one would wish to see—tiny balls of fluff. Watching them grow I had made up my mind to experiment with them and teach them to pick up their food from the ground, as I do with my Bee-eaters. To my indescribable disgust coming home one afternoon I saw some boys standing at the bottom of the tree, and I overheard one saying, “look at its bunged-up eye.” The rascals had climbed the adjoining tree, hit the old bird which was covering the young, and destroyed the babies. I was able to save the old bird, but I suppose I shall never get a chance again to observe these interesting birds so close to my home. I don’t see why these birds should not breed in captivity like the Jackasses, etc., if given a flight to themselves, and it is a pity that zoological gardens will not trouble to procure and keep such an interesting species, which, although nocturnal, seem to be always awake, seldom even dozing in the daytime.



CHESTNUT-BREASTED FINCHES.

(*Munia castaneithorax*.)

From a photo. by E. M. Cornwall

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AUSTRALIAN FINCHES AND BIRDS OF OTHER DAYS.

The Editor of 'The Emu' very kindly gave permission to us to use articles, etc., from that most interesting periodical, and we take the opportunity of reproducing a beautiful photograph of a group of Chestnut-breasted Finches coming to drink at a fountain.

Are the days gone by when aviculturists had the great pleasure of seeing in the dealers' collections quantities of these pretty little Finches, along with Diamond, Parson, Cherry, Long-tailed, Pectoral, Gouldian Finches and others?

The Parson Finches were merry little birds, jumping up and down and swelling out their velvet black gorgets, proudly carrying a hay stalk to show to a mate.

There cannot be many in England now.

It seems such ages ago since the days of peace and plenty, those days when one journeyed down past the Tower of London to St. George's Street, past the great docks where the ships came in and out with no fear of submarines and mines and terrors of war waged at sea by a cruelly ruthless and unscrupulous enemy; past folk of all nations, many of whom were of unprepossessing appearance, past frowsy women sitting on their doorsteps or indulging in fierce altercations and intemperance, until one's cab drew up at Jamrach's and Abraham's shops, where the grimy windows were filled within by piled up cages of parrots and many other birds. Those days when, on entering, one sometimes saw a cage full of New Zealand Tuī birds, uttering water-bubble notes, as well as such gems as Turquoise, Paradise, and elegant Parrakeets; days when one ruined oneself in succumbing to these irresistible temptations, when one drove away surrounded by travelling-cages containing birds which one may never see again.

There were blue-eyed Satin Bower birds, there were red Cardinals and American Bluebirds, Nonpareils and Indigo birds and all the rest.

And now "by Babylon's waters." . . .!

Some day many beautiful things from different parts of Africa and South America may rejoice the eyes of aviculturists in England,

but we must wait in patience, for in these sad days one loses interest in the birds we may still possess, feeling that in greater things than these must we employ our time and energy.

H. D. A.

THE CELEBEAN MALEO.

By GRAHAM RENSHAW, M.D., F.R.S.E.

One of the outstanding features of aviculture is the erratic and irregular supply of specimens. A bird may be imported for years, so cheap does it become that it is almost despised, then suddenly it cannot be obtained at any price, and its place is taken by some other species. Rarity in the market does not postulate rarity in the native habitat, the catchers may have no inquiry for the particular bird, so they limit themselves to those which they know to be in request. One may instance many South American forms, common enough in their tropical home, yet never seen alive in this country; in fact, this paradox obtains in every quarter of the globe. There are some species which are not only abundant in their own country, but are of great zoological interest; they are easy to keep, for they can stand a long sea voyage and the climate of Europe afterwards. Yet so little are they known in captivity that the arrival of one of them, even in the largest collections, is hailed almost as a return of the phœnix; the curious Maleo birds which swarm on the coast of Northern Celebes are cases in point.

The Celebean Maleo is quaint yet very handsome. About the size of a large Guinea-fowl, it has the head bare and the neck nearly so; the wings are ample, the tail is carried raised and slightly folded like a Silver Pheasant's, the broad, powerful feet are partly webbed. The bare head is decorated with a curious rounded casque composed of spongy honeycombed bone like the helmet of a Hornbill, and there is a smaller projection in front of each eye. The coloration of the Maleo is pleasing; the head and throat are dark brown, the wings are brownish-black, and the tail is black glossed with green. The underparts are lovely pinkish salmon-colour during life, but in museum skins this gradually fades till the specimen is quite bleached. The bill is pea green, with a red culmen; the legs and feet are

grey, and the claws yellow. The Maleo has well been called a noble bird, but only those who have seen it alive can appreciate its true beauty.

The writer would call attention to an error which has hitherto disfigured every description of the Celebean Maleo. *The casque on the occiput is bright blue during life, not black as always stated.* The black colour seen in museum skins is due to drying, and is not found during life; it is unfortunate that ornithologists have not noted this in drawing up their descriptions, which should always be done from live or at most recently shot birds. Taxidermists in setting up this species have followed the ornithologists, and the writer is unacquainted with any museum in which the Maleo is correctly represented; one finds the occiput daubed over with black paint, which is devoutly supposed to reproduce the tint of the live bird. The Maleo is, in fact, similar to the Wilson Bird of Paradise, in which the bare blue skin of the head fades to leaden colour after death. Other instances are the bright wattles of *Paradigalla carunculata* and the gorgeous neck patterns of many Cassowaries. The only satisfactory method of representing these hues in museum specimens is to excise the blackened skin, replacing it with wax correctly tinted after a water-colour sketch made during life.

Some years ago, by the kind permission of Dr. Kerbert, the writer photographed a Maleo which was living in the Zoological Gardens at Amsterdam. The bird was kept in a roomy aviary, with an outdoor flight and plenty of branches to perch on; it was in first-class condition, and seemed as hardy as any Pheasant. "The Maleo sits with its head drawn in," wrote Dr. Meyer many years ago; and this Amsterdam specimen looked very fine as it sat dozing on its perch, the pink breast being beautifully displayed. The flight was roofed entirely with wire netting, so that the bird could enjoy every ray of sunshine; perhaps this accounted for its fine condition.

Only a few examples have been brought alive to England. The first Maleo was received at the Zoological Gardens in 1848, but nothing seems to have been recorded about it, though perhaps it was sent over with some Brush Turkeys which were received the same year. The next was a private gift from Captain Parish, R.N. He had acquired it by a happy accident, having obtained it when at St.

Helena from a ship which had come from Java. On November 6th, 1871, this most desirable addition was safely unpacked at the Zoo. On July 5th, 1876, a third Maleo was purchased for the same collection, and a fourth was bought on May 24th of the following year. These later specimens were probably those which were studied by Prof. Garrod; for, in a paper on avian anatomy, published in 1878, he states that he had dissected three examples of the Maleo.

Although the Maleos turned out by one of the rajahs on the Sanghir Islands multiplied exceedingly, the present species does not appear to have bred when brought to Europe; too few have as yet been imported to give the species a chance. Perhaps this interesting event will some day take place in a Dutch Zoological Garden, for the visitor to the collections of Amsterdam and Rotterdam will notice many rarities from the East Indies exhibited therein. Probably the Dutch colonists have many opportunities of sending home these rarities, which live, as it were, before their very eyes. In 1909 the writer observed at Amsterdam several examples of a rare form of Anoa (dwarf Antelope-buffalo), a Rhinoceros Hornbill from Sumatra, a lesser Bird of Paradise from New Guinea, and a fine specimen of that almost unknown beast—the Sumatran Elephant. All these are distinctively East Indian forms, and it seems a pity that the collector of the Anoa did not send some Maleos as well. Since the chicks are left untended by their parents they would not require to be fed on any specially prepared diet, so that they would be easy to keep; youngsters that can fly strongly on the very day of hatching would be well able to fend for themselves. It seems that an enterprising collector, by persevering digging in the hot sand of the Maleo-pits, might make a good haul of almost hatched eggs, or even take the chicks just hatched; these in Europe would be great rarities, and would command a ready sale in the avicultural market. A Maleo egg now before me is much elongated in shape, and of a pale reddish buff colour.

CAPACITY IN NEST-CONSTRUCTION.

By Dr. ARTHUR G. BUTLER.

The fact that different groups of birds exhibit enormous variations of ability in their artistic efforts must be patent to all who compare the perfect work of a Long-tailed Tit with that of a Wood-pigeon; but it seems to me that in cases where one sex only acts as architect there is no evidence to prove that the opposite sex is not equally gifted with the capability of nest-construction.

Then again, in the case of birds which do not build, but lay their eggs in the nests of other birds, it is more than probable that other reasons than incapacity are the cause of this behaviour. Although many of the Cuckoos are parasitical in their habits, the Ground-cuckoos and other groups build nests and rear their own young; therefore it has been suggested that, being polyandrous birds, the hens of our Cuckoo "are obliged to wander in search of birds of the opposite sex" (Seebohm, 'British Birds,' vol. ii, p. 382). The fact that I have seen a hen Cuckoo pursued by three cocks does not seem to support this conclusion, but seems rather to argue in favour of the view that the hen Cuckoo is so constantly pestered by the attentions of numerous suitors that she has no time to spare for nest-construction.

This polyandry in the Cuckoo does not appear to interfere with the abundance of the species, since, as Darwin argues ('Descent of Man,' 2nd ed., p. 904), where the number of males greatly exceeds that of females it is evident that none of the latter will lack husbands. In the case of insects we may notice that where the males are far more numerous than the females (as, for instance, in the case of our common Vapourer-moth (*Orgyia antiqua*) the species is very abundant.

As we are all aware, in many groups of birds only one sex busies itself in nidification; while the other sex often calmly looks on, or at most pays only casual visits of inspection during the progress of the work, which it sometimes even hinders by officious meddling. In other groups both sexes are engaged upon part or the whole of the building.

Now, in cases where only one sex does the work, we must not

conclude that both sexes are not equally capable; for I have had definite evidence that they are so; thus, as stated in my 'Foreign Birds for Cage and Aviary' (vol. i, p. 196), owing to the ill-health of the male of a pair of Orange Weavers (*Pyromelana franciscana*) which I purchased in 1885, the hen started to build a nest for herself, which she had almost completed when both sexes died, and I had the pair mounted with the hen at the entrance of the nest as I had seen her when occupied in building it.

Then, again, in 1895, as recorded in 'British Birds with their Nests and Eggs' (vol. ii, p. 68), the hen of a pair of Goldfinches in one of my aviaries built a nest in a Hartz cage, laying and hatching out four eggs, of which three left the nest; but before this occurred the male built a second nest which the hen inspected, approved of, and, immediately after the flight of her first family, started laying again in the second nest, leaving her husband to complete the bringing up of the newly-fledged youngsters.

Although many male birds provide the materials with which their wives build, two hens associated in a cage will collect their own material and together build a very satisfactory nest, as was the case with my two Rock-sparrows. On the other hand, where it is the habit of the group to which they belong for both sexes to unite their labours in the construction of their home, the absence of one sex appears to be fatal; thus in the genus *Icterus* (typical hang-nests), as with the somewhat similar Weavers of the genus *Ploceus*, both sexes appear to contribute to the plaiting of the remarkable pensile nests. It is therefore not surprising that my female Hangnest, although she made repeated attempts to do so, utterly failed to build a receptacle for her eggs and eventually deposited the material in a nest-box and dropped her eggs on the floor. I was afraid to introduce my male bird into her tiny aviary lest they might kill each other; for though the height of her compartment measured about 9 ft. in the centre, the floor-space covered only about $3\frac{1}{2}$ ft. square.

Now, we know that in the *Fringillidæ* and some other groups the male only, or both sexes conjointly, collect nesting materials, and the hen only utilises them in nest-construction; then again, in the case of the Fire-weavers (*Pyromelana*) and some others, the males normally both collect the materials and build the nest; in the

Ploccine Weavers the males also collect and build, until only the cup to contain the eggs is lacking to complete the structure; then the offices of the hen are requisitioned, and she, sitting inside upon the transverse bar which divides the double opening of the uncompleted nest and her husband on the outside at the back, they pass the grasses backwards and forwards to each other, weaving them into a firm receptacle.

Whether both sexes of the Hangnests collect the materials as well as working together on the construction of the nest I do not know, but from what we know of other sociable birds it seems probable: it is certainly the case with the Waxbills, and I think also with the Grassfinches and Mannikins.

It appears to me that the explanations for these varied methods must differ in the case of each group; thus the hens of the typical Finches and perhaps of most of the small European perching birds, are impelled to build because they feel the need for a suitable cradle for their eggs; whereas the cock birds are not conscious of any such need, though they may be so far interested as to be willing to choose a site for the nest and prepare the where-withal to build it.

In the case of the more impetuous, amorous, and often polygamous Weavers, the males build as an inducement to the females to start housekeeping, and frequently produce far more nests than are required; perhaps in order to give the future bride a choice of residences. The habit of multiplying nests appears in this way to have become so ingrained in their nature that a supply of building material will start many Weavers nest-building when no hen birds are present to make use of the structures; consequently the nests built by Ploccine Weavers, when unpaired are always imperfect, in my experience, the assistance of the hen bird being required to enable the cock to complete the cup.

I have seen it authoritatively asserted (so far as I remember, in an article published in the 'Transactions' of the Linnean or Zoological Society by an Indian Civil Servant*), that cock Weavers are in the habit of purposely building these unfinished nests as

* I am afraid this is very vague; but it is many years since I saw the statement, and, though my memory is good, it is far from perfect.

shelters in which to roost; doubtless they might prove useful during a tropical thunderstorm; but I do not, for one moment, think that the birds have that object in view when they weave them. I feel certain that if equal numbers of both sexes were available to do the work none of these nests would be imperfect.

It is easy to understand why sociable and mutually affectionate birds like Waxbills should share the labour of nest-building and one can quite understand that the complicated plaiting in the pensile nests of Hangnests could only be produced by the two sexes working in unison.

I have pointed out elsewhere that although the different groups of birds have the character of their typical nests impressed upon their brains, and therefore instinctively build the same types after the lapse of centuries; nevertheless, they are perfectly capable of altering the whole character of their architecture to accommodate it to changed conditions; moreover, in the case of our House-sparrow we know that two totally dissimilar types are common, the well-formed bag-like nest built in trees being utterly dissimilar in character from the almost shapeless collection of rubbish which it piles up when it builds in holes.*

I think, therefore, that we may safely conclude that different circumstances decide the constructional impulses in birds, and not the presence or absence of capacity in either sex; although it is probable that inexperience in the selection of the most suitable materials by young birds may account for the flimsy and faulty character of some of the nests which one meets with from time to time.

WINTER IN HOLLAND.

Mr. Blaauw writes:

You have no idea what I have gone through during this cold spell. All the more delicate South American and South African and Australian Waterfowl had to be taken indoors. The bird houses and houses of the antelopes and zebras had all to be heated, and there was hardly any coal to be got. We pulled through, however, somehow, and now the thaw has happily set in. Here also many wild

* I also have a nest constructed like that of a Duck which was built in the fork of a hawthorn.



LONG-TAILED TIT, BUILDING NEST.

birds died, and the wild fowl suffered most of all, all the water being frozen over with a *thick* layer of ice (autos over the Zuiderzee!). I hear lots of wild duck of many species were picked up dead or dying. Any amount of Blackbirds died here in my park, although they were fed when possible. The poor Waterhens were seen everywhere the picture of misery.

My redbreasted Goose that I told you had been operated on, has *recovered*, I am glad to say.

There is a plague of Starlings; thousands upon thousands go to sleep in my bamboos and in the shrubbery, spoiling everything. So far I have not been able to get rid of them. I wonder what they find to feed on. Those that were killed are —— fat! I picked up a *dead* Kingfisher that always frequented my pond near the house; *very* sad! The pair of them had a sad mishap last summer. They had a nest with eggs (quite a lot) in a bank a little above waters mark, and then the waters rose abnormally (result of the war) and swamped the poor Kingfishers. They were not drowned, but the eggs were lost!

THE LONG-TAILED TITMOUSE, AND OTHERS.

By HUBERT D. ASTLEY.

This appallingly severe winter must have been the means of destroying countless birds of many species, but probably none have suffered more than the lovely little Long-tailed Titmouse.

Mr. Galloway wrote to say that he believed, as far as he could judge, that they are all done for in the neighbourhood of Reading, the long frost, with the piercing easterly gales, having been too much for such frail little bodies. It is now that they should have been building their wonderful nests, certainly structures to excite one's admiration in any case, but that admiration is enhanced when one thinks of the minute bills which carry the materials and shape them so compactly. Nature and mankind seem to have gathered themselves up of late for a universal crusade of destruction; as for the birds, it will be some time before they can recover their normal numbers.

The middle of March! I have not heard a Missel-Thrush tune up yet, and not until the 13th did I catch the sound of a Song-Thrush's notes. The snowdrops were in full bloom at that date where, in other winters, they are nearly over, and hardly a crocus to be seen.

With Woodpeckers and others starving, and no doubt dying, it was curious to see a pair of Australian Crested Doves, which, of course, were fed, go through that bitter weather unscathed. They are practically wild birds, having been loose for three years.

The Blackbirds besieged one every time one appeared with food for them. Wagtails must have suffered.

Most winters the ploughmen are at work in February, which enables many birds to obtain insect food, but this year the land was frost-bound.

I suppose that fruit-growers will rejoice at the decimation in the birds' ranks.

Will they continue to do so when they find an increase in insects, though no doubt the latter have been also largely destroyed.

Golden-crested Wrens! What has happened to *them*? Surely they have met with the same fate as the Long-tailed Titmice!

The whole creation seems to have groaned and travailed in pain!

[NOTE.—Mr. Galloway has sent an article on Long-tailed Titmice, which was unfortunately too late for publication; it will, we hope, appear in the May magazine.—ED.]

REFERENCE LIST OF COLOURED PLATES OF THE PARROTS.

By Dr. E. HOPKINSON.

(Continued from p. 156).

Neophema bourkei, BOURKE'S PARRAKEET.

Gould, B. Aust., v, pl. 43.

Cass., 436, pl., p. 439.

Russ, iii, 93, pl.

Av. Mag. (1905), pl., p. 239.

N. venusta, BLUE-BANDED GRASS-PARRAKEET.

Gould, B. Aust., v, pl. 37.

N.L., xviii, 199, pl. 27.

N. elegans, ELEGANT GRASS-PARRAKEET.

Gould, B. Aust., v, pl. 38.

N. chrysogaster, ORANGE-BELLIED GRASS-PARRAKEET.

Gould, B. Aust., v, pl. 39.

N. petrophila, ROCK GRASS-PARRAKEET,

Gould, B. Aust., v, pl. 40.

N. pulchella, TURQUOISINE.

- Gould, B. Aust., v, pl. 41.
Seth-Smith, Parrakeets, 223, pl.
Cass, 436, pl.
Russ, iii, 75, 824, pl.

N. splendida, SPLENDID GRASS-PARRAKEET.

- Gould, B. Aust., v, pl. 42.
Seth-Smith, Parrakeets, 226, pl.

Cyanorhamphus unicolor, ANTIPODES ISLAND PARRAKEET.

- Seth-Smith, Parrakeets, pl., p. 227.

C. novæ-zealandiæ, NEW ZEALAND PARRAKEET.

- Buller, Birds of New Zealand, pl.
Rowley, Orn. Misc., ii, pl., p. 115 (*rowleyi*).
Russ, ii, 168, pl.

C. subflavescens.

- B.M. Cat., xx, pl. 17.

C. saisseti.

- P.Z.S. (1882), pl. 46.

C. cyanurus.

- B.M. Cat., xx, pl. 18.

C. auriceps, GOLDEN-CROWNED PARRAKEET.

- Seth-Smith, Parrakeets, pl., p. 235.

Nymphicus uvæensis, UVÆAN PARRAKEET.

- B.N. (1910), 241, pl. (cock and hen).

Nanodes discolor, SWIFT PARRAKEET.

- Gould, B. Aust., v, pl. 47.
Cass., 444, pl.

Melopsittacus undulatus, BUDGERIGAR.

- Gould, B. Aust., v, pl. 44.
Cass., 432, pl. 1.
Russ, iii, 43, 823, pl.
(variety) BLUE BUDGERIGAR. Plate. B.N. (1911), pl. 1.

Pezoporus terrestris, GROUND-PARRAKEET.

- Gould, B. Aust., v, pl. 46.
N.L., xviii, 203, pl. 29.

Geopsittacus occidentalis, NIGHT-PARRAKEET.

- Gould, B. Aust., Suppl., pl. 66.

Stringops habroptilus, OWL-PARROT.

- Buller, Birds of New Zealand, pl.
Gould, B. Aust., Suppl., pl.
Wyt., pt. 3, pl. (and head of yellow variety).

A BLUE-GREY VARIETY OF THE ROOK.

By E. W. H. BLAGG.

On May 18th last I obtained a very remarkable variety of the Rook. It was a young bird which was not quite old enough to be able to fly, and I found it perched on a bush close to the Rookery here, it having evidently just flopped down from the nest. In its colouring this bird is very similar to a blue Andalusian fowl. I sent it off at once to Messrs. Rowland Ward, Ltd., to be set up, and while in their possession Mr. F. W. Frohawk has made a most admirable drawing of the bird, which is very effectively reproduced in the 'Field' of September 2nd, to which I would refer your readers who are interested in this very rare and striking variety, and I cannot do better than quote Mr. Frohawk's detailed description of the bird: "The head and neck, which are the darkest parts, are dull purplish-brown with faint dusky bars; back and rump drab-grey; wings and tail light ashen-grey transversely barred with purplish-brown, forming broad submarginal bands on the primaries and secondaries as well as on the primary and secondary coverts. There are also indistinct narrow median bars on all these feathers and on the mantle and scapulars also; the tail and upper tail coverts are conspicuously barred; the rump is less distinctly marked. The ashy-grey ground colour of the under parts is also mottled with dusky bars. The bill is deep horn brown, the legs and feet are black and the irides hazel."

On May 20th a second young bird, precisely similar in colour and markings, also flopped down from the nest. This bird I tried to keep alive, with the intention of sending it to the London "Zoo," but it was very thin and weak and did not long survive. I have presented it to the North Staffordshire Natural History Museum.

I strongly suspect that the parent birds ceased to feed these two youngsters, owing to their peculiar appearance, and that starvation was the cause of their flopping down from the nest, for this year we had no youngsters of ordinary colouring tumbling down from the trees at perching time. If there are rough winds a good many young birds generally get sent down, but this season the weather was fairly calm at the time the youngsters left their nests.

It is practically certain that both the parents of these two young grey Rooks were normal coloured birds, for had they been otherwise I should have been sure to notice the birds, for their nests are only a short distance from the windows of this house, and we had only about thirty nests this year; and, though I have no actual proof of the fact, it is a moral certainty that both young birds came from the same nest.

I have a strong suspicion that a mysterious bird which I saw in the early summer of last year was a similarly coloured grey Rook; it was the size and had the flight of a young Rook, but in the distance looked a very strange colour; I followed it for some little time, but could never get very near to it, and finally lost all trace of it. Needless to say, I shall keep a sharp look out for young grey Rooks next breeding season!

Since I met with these two young birds I have been in correspondence with several ornithologists, and have searched all the bird books I have access to, and apparently there is a record of a somewhat similarly coloured bird which was obtained in 1816 (see Stevenson's 'Birds of Norfolk,' i, p. 277); this bird is described as being mottled over with *black*; I should describe my bird as being mottled over with *dark grey* rather than black. Mr. Whitaker, of Rainworth, Notts, has a lavender-grey Rook in his collection, but it is without the very distinct mottled and barred appearance of my bird. Of course, albino and pied Rooks are fairly common, and there is a well-known variety of varying shades of brown, of which latter phase of variation there is a very nice living specimen at the "Zoo" at the present time.

THE POOR WILD BIRDS!

By DR. A. G. BUTLER.

This is what our Editor wrote to me during the long frost in January and February, and I hope all our members had similar kind thoughts respecting our feathered friends, but sympathy should be shown in deeds as well as in words, and therefore it is well to consider, when severe winter weather covers the earth with snow, how to keep at least some of the birds in our neighbourhood from starving.

During one hard winter, when every scrap of food was fought for in my garden and the Starlings seemed likely to secure almost every scrap while the weaker but more pleasing birds could scarcely obtain a morsel, I set a caravan-trap and speedily caught thirteen Starlings, which I turned into a large cage and fed during the winter, releasing all but one (a remarkably well-formed cock bird) in the spring; that gave my other garden visitants a better chance of survival.

At the present time we are ordered to be economical in the matter of food, and if I had not always been a small eater (excepting when on a steamer crossing to the Continent) the present price of food would alone be sufficient to make me so; but, with all care in the consumption of edibles, there must always be a certain amount of refuse—fat, skin, bones, burnt crusts, and odds and ends of vegetables, all of which are eagerly welcomed by the fowls of the air, and which, if placed in a pan, need not disfigure one's garden.

Perhaps bones and half cocoanuts suspended below branches and pergolas are not particularly ornamental, but they are a great boon to Titmice and are easily removed at the end of the winter; moreover, it is a pleasure to watch the little acrobats feeding. By the way, when the two halves of a cocoanut have been cleaned out by the birds, they can be taken down, filled with melted fat, and replaced; the Tits are equally pleased with the latter, and I suspect that it is more sustaining than the nut.

If one has many insectivorous birds there is always quite a lot of yesterday's food left in the various food-receptacles; and this, if placed in a pan out of doors is eagerly pounced upon by the wild birds and devoured to the last crumb. One winter I caught far more cockroaches than I needed for my insectivorous birds; so, after taking the few I required, I put the beetle-traps outside and they also were soon cleared of their contents.

Excepting when snow has fallen very heavily, there are always some seeds to be obtained from dead weeds, grass-panicles, etc., which rise above the surface; nevertheless, all seeds for which one has no use are welcome to our winter visitors. At one time I used to have many seed-samples sent to me, some of which I should hesitate to give to aviary birds, but they were gratefully accepted by their wild brethren. I am rather shy of giving niger-seed (of which I still

have a good deal), as I believe it to be positively injurious to Finches ; I have tried it several times, but my birds have always sickened and died shortly afterwards.

Now, it may be asked why I give to birds in freedom food which I refuse to those in aviaries. A wild bird has to work hard for its living and must be constantly on the alert to avoid predaceous foes, so that it is constantly taking violent exercise, thus its digestion is more active than that of the aviary bird ; moreover, in winter it is exposed to intense cold and therefore can assimilate fatty food which might prove too heating in a warmed enclosure ; an Esquimaux transplanted even to our apology for a climate would probably be no longer able to digest whale blubber, tallow, and lamp-oil.

There are generally plenty of berries about here ; in the front of the house I have crimson may, mountain ash, holly, and pyracanthus ; and in the back garden crimson may, hawthorn, and ivy ; so I think probably Redwings, Fieldfares, and other Thrushes do pretty well on my premises during the winter. I don't know whether snowberries are eaten, but there are always some in the garden ; I don't much care for them in the rockery, where they have grown.

In severe, cold weather I expect that Woodpeckers obtain a meagre subsistence from stray acorns, nuts, and berries, but how the unfortunate Kingfishers manage to survive a long frost I cannot imagine ; the question is—Do they ? Whenever rivers are frozen over, how are these birds able to secure fish ? If one could but do it, what a kindness it would be to domesticate all our wild Kingfishers during the winter months, turning them loose again in the spring ! But just think of the size of the aviary and aquarium which would be needed, and the thousands of minnows and other small fish ! I fear we shall have to be content to let the poor things die ; they ought all to migrate at the approach of winter ; I would if I could.

REPORT OF COUNCIL MEETING.

A Council Meeting of the Society was held by the kind permission of the Zoological Society of London at their Offices, Regent's Park, on February 23rd, 1917.

The following members were present : Mr. Meade-Waldo (in the chair), Mr. B. C. Thomasset (Hon. Treasurer), Mr. Astley, the

Hon. Mrs. A. Bourke, Miss Chawner, Mr. Ezra, Mr. Seth-Smith, Mr. Willford, Mr. Pocock, Miss Alderson (Hon. Secretary).

Letters of regret for non-attendance were received from Dr. Butler, Dr. Amsler, and Mr. Trevor-Battye.

The minutes of the previous meeting (on October 11th, 1916) were read and approved.

Mr. Meade-Waldo read a letter from the publishers, Messrs. Adlard & Son & West Newman, Ltd., saying that owing to the War bonuses and the increased price of paper, they would be obliged to make an increased charge of 10 per cent. for producing the 'Magazine.'

The increase was regarded as only reasonable and accepted by the Council.

The Hon. Secretary reported that all medals owing to members had been duly engraved, sent out, and acknowledged.

A letter was received from Mr. Astley tendering his resignation as Editor after next October, but at the urgent request of the Council Mr. Astley kindly consented to remain in office for the duration of the War, should it be prolonged over October. He has now acted as editor for over four years.

Mr. Astley announced that the Duchess of Bedford had kindly given permission for a water-colour drawing of Red-breasted Geese to be used as a plate for the 'Magazine.' The offer was accepted with thanks.

The date of the Summer Meeting was then considered, Mr. Trevor-Battye (in his letter of regret for non-attendance) suggested that the date of future meetings might be arranged for a Tuesday, that day being the day before the meetings of the Zoological Society, so that for anyone who was a member of both Societies, one journey only might be needed for both attendances. Owing, however, to the few days when the Offices can be lent for the meetings of the Avicultural Society, it was decided that this proposition was probably not feasible.

It was decided to hold the Summer Meeting, with garden party and tea as usual, some time during the first week in July, the date to be arranged and announced later, July 6th being suggested.

The Hon. Treasurer then read his report. The finances are

in a satisfactory condition, and the back subscriptions still owing by various members are coming in better. Donations for the illustration fund are, however, always welcome.

The meeting then closed with a vote of thanks.

ROSIE ALDERSON, *Hon. Secretary.*

CORRESPONDENCE.

ULTRAMARINE FINCH, ETC., OR COMBASOU.

SIR,—May I point out that my notes on this bird * should have been headed Ultramarine Finch or Combasou, and not Long-tailed Combasou. Readers must have noticed that *H. ultramarina* was the incorrect scientific term for *Vidua hypocherina*, only casually referred to in the article. Whether this was my fault or not I cannot say, because I have not my old MSS. by me. In any case, it is as well to call notice to the error.

The notes on American Warblers, by Lady William Cecil, were a source of interest to me. I have seen skins of many of them, and in an American bird book I have, many are figured and talked about in a popular fashion, and I had often thought how charming it would be to see or have them alive. I am delighted at Miss Chawner's success with Y.W. Sugar-birds, because, although not quite absolute, to have gone so far is really "great."

ALLEN SILVER.

THE EARLY HISTORY OF THE CANARY.

SIR,—I am much indebted to one of our French members (who, however, does not favour me with his name), for a cutting from 'Le Chenil, Le Ponaillier et L'Echo de L'Elevage Reunis' of June 26th, 1913, giving a short account of the early history of the Canary, and referring in particular to a very early French work on the subject by Hervieux de Chanteloup. My anonymous correspondent has added a marginal note to the effect that the second edition of this old work, entitled 'Nouveau Traité des Serins de Canarie,' was published in 1713, and, if this date is correct, it is evident that the 'Fancyer's Delight,' which was published in 1711, the author of which claims priority over any other English work in aviculture, was anticipated by an earlier French bird-book. On this our allies are to be heartily congratulated.

Hervieux de Chanteloup seems to have been the first to suggest the somewhat fanciful derivation of "serin" from "siren," on the ground of the fascination of the song of the Canary, and Prof. Newton, in his 'Dictionary of Birds,' accepts this derivation. I hardly think, however, that the majority of classical scholars would follow Newton and Hervieux without further evidence, and the 'Oxford Dictionary' describes the etymology of the word as "doubtful." Besides, the original Canary did not sing well. [The *wild* canary has a charming song.—ED.]

I must try to find a copy of this old work in the British Museum, for it seems to be most interesting. There is, for instance, a delightful description (quoted by "Le Chenil") of the arrival every spring and autumn of the Swiss dealers, bringing consignments of Canaries from the Tyrol to Paris. They used

* P. 89, vol. 3, No. 3, January 17th.

to put up at a famous cabaret in the Faubourg Saint-Antoine, called the "Boule Blanche," and all Parisian fanciers of that period used to rush there to pick up bargains and criticise the birds. The former used to have a very polite reception, but the latter were apparently not always welcomed.

I must tender my very best thanks to my correspondent.

W. E. TESCHMAKER.

RED-THROATED TREE PARTRIDGES.

DEAR SIR,—Some members of the Avicultural Society may be interested to hear that the survivor of my Red-throated Tree Partridges (*Arboricola rufigularis*) died on February 2nd.

I got the birds from India nearly nine years ago, and when imported they were fully adult, so this bird has had a long life.

About their limited nesting operations I wrote to the Magazine some years ago, and would now only add that these Tree Partridges are quite as easy to keep as any other kinds I have had, and are amongst the most interesting of birds.

They are great nesters, and the bird that died the other day—although alone—nested and laid every year.

Yours faithfully,

Woodlands, Retford.

C. BARNLY SMITH.

AN EFFICACIOUS MOUSE-TRAP.

I am sending a very humble but useful suggestion for mouse-traps which I have found most excellent in my aviaries, and into which no birds, whether flying or ground ones, can get in. I find mice such scourges, besides being very wasteful, especially in these bad times.

Take a fairly substantial wooden box and cut in each of the four sides a small hole an inch square, for this is not large enough for any birds to get in, but amply so for mice, which run into the dark on every occasion.

Place this box upside down with the holes on the level of the ground, having previously set four traps to go under it.

Use metal break-back traps of the common type, for these are preferable to the wooden ones, as the mice gnaw the latter.

Use butter or lard smeared on the spring-wires, *not* lumps of cheese, which the mice can carry off without springing the traps. If the wire is smeared with the bait mentioned, they cannot do this, and are more certain to spring the traps. We often catch twenty-nine or thirty mice a night in this way. The box which covers the traps is about a foot square.

Hartwell House, Aylesbury.

MABEL A. LEE.

ANOTHER APPEAL FOR ARTICLES.

The Editor greatly regrets to inform members that he has touched bed-rock in the matter of "copy" for the Magazine, and although he is fully aware of the extreme difficulty of supplying any nowadays, he asks members to do their utmost to uphold the Magazine.



NEST AND EGGS OF NIGHTINGALE.

Photos by J. H. Symonds.



FEMALE NIGHTINGALE WITH NESTLINGS.

Adlard & Son & West Newman, Ltd.

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MAY, 1917.

THE COMING OF THE NIGHTINGALE.

By W. E. TESCHEMAKER.

Our Editor having asked me to postpone the completion of my recent article, in view of his wish to secure some "copy" to accompany two most excellent photographs of our greatest song-bird, I have as a matter of course acceded to his request. He has not confided to me the particular object he had in view, but the moment is certainly appropriate, for "spring is y-cumen in," and the Nightingale is presumably just reaching our shores. In any ordinary season we should be quite certain to see him by April 20th, but this is no ordinary season. All the earlier migrants are a month late. I saw the first Chiff-chaff on the 17th near Exeter, and I have not yet seen a Wheatear. The later migrants seem to be keeping to their usual time schedule, but, alas! how few and far between they are. As yet I have only seen five Swallows and one Sand Martin, and have only heard two Cuckoos.

The alarming decrease of our summer migrants, which has been noted for years past, has been greatly accentuated this season, and I fear that a great disaster has overwhelmed the leading battalions of the great army. We have it on the authority of Seeböhm that the leaders of the Snowbuntings and Geese, which nest in Northern Russia, turn back and fly southward again if they find the conditions unsuitable upon arrival at their nesting quarters, but there is no evidence, I think, that any migrants recross the Mediterranean. Many no doubt linger on the Côte d'Azur, but those ardent spirits, who decide to press forward and stake their all upon the chance, are

most surely doomed should they find Central Europe frost-bound or swept by blizzards, as has been the case in this memorable and untoward spring.

Nothing perhaps is more saddening for a bird-lover than to revisit the well-known haunt of some particular species season after season and to listen in vain for a voice that is still. This has been the writer's lot for some seasons past in the case of the Nightingale. Only a few years since I described in a contemporary a flourishing colony of our renowned minstrel in East Devon but, if I revisit the spot now, it is but to find the "barren choirs where late the sweet bird sang."

This once favoured spot is close to Chudleigh Knighton—a little village lying between Chudleigh and Newton Abbot. There was once a great lake here, the ancient bottom of which is now known as Bovey Heath, and consists for the most part of a deposit of "china clay," washed down from the surrounding hills by the moorland streams. Men, whose names have long since been forgotten, dug out the clay, forming large pits, and these in course of time were filled up with water and became covered with trees and dense undergrowth, forming a secluded and almost impenetrable retreat, which the nightingale colony, above referred to, regarded as their very own. They had divided up their kingdom into five sections, using the ancient paths as boundaries, and each section was occupied by a pair.

But, both for birds and men, life is sure to be full of trouble. One spring the Nightingales returned to find that a quantity of the undergrowth had been cut down for firewood. There was consternation among the colonists and much fighting and a re-division of the land. The next spring witnessed the final disruption of the colony and the abandonment of the site. Only two or three pairs returned, and they found that their enemies, the human race, with the latter's customary greed of gain and complete disregard of the feelings and vested interests of birds, had opened a new clay-pit and erected a hideous and noisy pump in nightingale-pond. This was the unkindest act of all and so outraged the feelings of the Nightingales that they abandoned the locality and have not been seen in the neighbourhood from that day.

I have ever since lived in hope that I should some day find this colony again, in new and less troubled surroundings, but its fate has remained an unsolved problem. I fancy that what usually happens in such cases is that the outcasts endeavour to establish themselves in the territory of the nearest settlement of their race, with resulting warfare and disaster to both communities.

Another sad memory connected with this spot is that I brought my friend, the late T. H. Nelson (author of 'The Birds of Yorkshire'), here on the occasion of our last ramble. He had never heard the Nightingale sing, and I had promised him this treat if he would come as far south as Devonshire. Another friend, who lived in the Midlands, had made him the same promise, but this friend was (as T. H. N. himself) a collector, and all that he had been able to show Nelson was some empty nests, which he had looted of their contents. Naturally the unfortunate Nightingales in the district were too grieved to oblige by a song or even a single note. So Nelson came to Devon, and one beautiful afternoon in May I was able to present to him five Nightingales singing at one and the same time.

I was curious to see what effect such an experience would have on a collector, because a collector is a unique type. What Nelson may have thought I know not, but all that he said was "Why did the Owl 'owl'? Because the Woodpecker would peck her." He also lost no time in suggesting that we should try to obtain a "clutch," but, somehow or other, as on many other occasions when I assisted (?) him in nesting expeditions, there was no loot.

I well recollect that on another occasion Nelson came to lunch with me, and saw a well-marked Sparrow-Hawk's egg taken from the nest that morning. During lunch he skilfully introduced a discussion on the damage Sparrow-Hawks did to game and poultry, and was much elated when I told him that the nest was in a most accessible position, and that he could take the entire clutch if he wished. After lunch, therefore, we made our way to the nest which was, as I had described it, only some fifteen feet from the ground; but just a small portion of the trunk was bare of branches, and had to be "swarmed."

Now T. H. N., though an ardent collector, was no climber; the eggs, as I well knew, were absolutely safe. Having vainly

endeavoured to obtain any assistance, he addressed himself to the third member of our party, who was a first-rate climber. But the latter, quite entering into the humour of the situation, approached the tree in the Charlie Chaplin manner, and, with grotesque contortions and exaggerated effort, wriggled up a short distance only to slip back again. Nelson, who had not quite grasped the true inwardness of the situation, made desperate but unavailing attempts to push him up from below, in the midst of which the climber suddenly released his hold, and down they both came, Nelson underneath, and getting much the worst of the deal. But Nelson was a most amiable and charming personality, and, though he had to return without the Sparrow-Hawk's eggs, he was not in the very least ruffled.

One of the first principles of successful bird-preservation is that one should never assist a collector in any way whatever, so, although T. H. N. was very anxious to know the exact locality of this nightingale colony, he was only told that it was "near Chudleigh." Nevertheless, so incorrigible is the collector's habit of passing on information that even the above vague description very shortly afterwards found its way into print. I think T. H. N. must have mentioned it to Mr. H. F. Witherby, for this remote spot was subsequently described in 'British Birds' as the best locality in Devonshire for Nightingales.

Alas, both T. H. Nelson and the friend who did not succeed in reaching the Sparrow-Hawk's nest, were ferried across the dark river last year. *Fuit Ilium: fuimus Troes.*

I do not, however, need to go as far as Chudleigh to hear the Nightingale sing: almost every spring morning for the past seven years I have been awakened by the most beautiful of all bird-music. It is a wonderful thing that such a romantic and artistic temperament as the Nightingale's should consent to sing in a bird-room, but it does consent—very frequently, for not all Nightingales will make the attempt, nor will the Nightingale sing for every aviculturist. Those who regard birds as automata, only requiring to be placed in a cage of regulation size and shape, and fed on the regulation diet, will never have any great success with Philomel. The Philomel has the true musical temperament—imaginative and a little fitful.

Let me give you an illustration of what I mean. Frequently I am away from home. The morning after I return, it has not infrequently happened that there has been silence in the bird-room. The Nightingales had been fed in my absence—and, I doubt not, carefully fed—but only mechanically fed. Something had gone out of their lives. Their friend, the only person in the house who valued them at their true value, had deserted them. On these occasions I have only needed to slip on a dressing-gown, just a few words of greeting to each of my musicians and a few mealworms, as a token of affection, and back to bed again. Mark the result. In less than ten minutes first one and then the other pipes a few notes, and in half an hour I have my full orchestra.

Let us also note that the best situation for a bird-room is next to one's bedroom. We are all of us pretty busy nowadays, and practically the only time that most of us have for enjoying the songs of the caged Nightingale is the hour between waking and dressing.

It follows that we should regard it as a virtue of the caged Nightingale that he sings best in the early morning. But you can also turn him on at night if you wish; that is to say, if you are fortunate enough to have electric light in your house. Just switch on the light in the bird-room for twenty minutes at any hour of the night, and mark the result. I am so far from civilisation that I have no such convenience. But where there is a will there is a way. I have a 4-volt lamp hanging from the ceiling and an accumulator in the attic above the bird-room. The apparatus is cheap and quite effective.

I do not for one moment suggest that a bird-room fitted with electric light is a really appropriate environment for the song of the Nightingale; it should be heard beneath the silent stars and in the hush of an early summer night. But those who cannot hear it under these ideal conditions, can still hear it, if they have a real love for music and a real sympathy for birds. Those, on the other hand, who think that birds have no minds, and that the only necessary conditions of success in aviculture are the purchase of a book of directions and some patent foods, should give a wide berth to the Nightingale and devote themselves to the homely parrot and the vociferous Class III Roller—"made in Germany."

WATER RAILS CALLING.

By AUBYN TREVOR-BATTYE.

Directly below the hill on which this house stands—some 40 ft. below it—is a piece of boggy and rank grass land through which runs a stream varying from some 10 to 20 yards in width. About half of this spot may be looked upon from the windows, and the remainder from certain points in the garden. Because the stream is fed by many springs from the base of the chalk escarpment, it is here clear as crystal, but lower down it passes into the Tertiary system to become the muddy Rother. The stream is shallow, with here and there little islands and promontories of weed and silt; and its bed is stony. It runs southward away from the house, so that one sees it lengthways. On its left bank there is in summer a stretch of coarse grass, bog, and forget-me-not, a “carrier” lined with willow-herb, and a jungle of bramble, sallow-bushes, and water mints. On the right bank is a — “forest,” one might almost say, of the beautiful, feathered, “barren” stems of the Great Horntail (*Equisetum telmateia*), in places higher than one’s head, though at this date, March 15th, all is flat and brown. I ought to have said that at one point a small side stream enters, which makes its own little muddy delta. The width of the main stream proper is doubled by a line of flat beds, separated by low waterfalls, and filled with water-weeds and water-cress. From this it will be clear that here we have an excellent feeding-ground for water-fowl and waders, although all on a small scale. These details were needed in order to explain how it comes about that birds so shy as Snipe and Water Rails may be studied without difficulty from our windows.

This rough, damp ground is, of course, visited by various birds from the wood that touches it; Pheasants come (they are always lovers of damp ground), and Wrens; Wood-Pigeons, also, are constantly flying down to drink. But its usual residents have been Wild-duck, Moorhen, Dabchicks, and Grey Wagtails. (The Grey Wagtails are there now, though our Field Wagtails disappeared when the hard weather came and have not been seen since).

I have never seen Coots up so high as this, though there are Coots on the broader water just below. As their usual feeding-

grounds were frozen hard we were visited this winter by Snipe and Water Rails.

There were seven Snipe; each morning my dressing was delayed through watching them. There they were, two, perhaps, on one little island, three on the delta, a single one here and another there, probing like little truffle-hunters. I do not know when Snipe sleep, for they seem to feed by day and fly about at night; perhaps they snatch a wink just before daylight. When one came up-stream upon these Snipe they would rise in a wisp and come right over one's head in the easiest of driving shots. They never headed up the stream, for that would lead into the hills. I hoped that one pair might stay and nest, but the feeding is very limited, the herbage in summer would be much too rank, and at any rate as soon as ever the frost broke they were off. So much for the Snipe; we set out to speak of Water Rails.

Before coming to Ashford I had lived in a Water Rail country for some years—in the Test Valley, on the other side of this county, and that district I repeatedly visit in the winter for shooting and in the summer for fishing. The valleys of the river Test and of the river Anton are great breeding grounds for Snipe and for Water-Rails; the dogs often put up rails when we are snipe or duck shooting, and in the summer when fishing one sees and hears them in the reeds and on the weed-beds, but both those rivers are too deep for them to wade in. It has therefore been rather a surprise to find how regularly they feed in water in which they can just wade with the water up to their bodies, and how frequently they swim across those places that are a little too deep for this. Another small point that is new to me, a point which one would hardly perhaps suspect from the soft feathering of a Water Rail's head, is this: that for long periods together they will feed with their heads below water. It is quite unusual to see a Moorhen putting its head below the water, though Coots of course often do it. But a Water Rail will work its way inch by inch up the bed of the stream feeding entirely on something—probably *Gammarus*—it finds among the stones at the bottom. I thought I knew all the Water Rail's notes; but never until now have I heard its most remarkable breeding-call. No book but one that I have makes any attempt to convey this accurately or,

indeed, even refers to it. Prof. Alfred Newton in his 'Dictionary of Birds' says: "Besides this" (its sudden, loud, harsh cry), "which is peculiar to the cock bird, it has a croaking call that is frog-like." Heard at a little distance this breeding call would well convey that impression; but here we are too close to the birds, for as it gets dark they come right up into the garden (the stream runs through the garden) so that one can hear the whole quality and timbre of the note; and it has a musical suggestion that is wanting in the croak of the common English frog. (To my ear the voice of the Turtle Dove is more like that of a frog than is that of any other British bird). Without meaning to suggest that this call of the Water Rail is, like that of the Corncrake, ventriloquistic, I have found it rather difficult to locate; indeed, when I first heard it, it seemed to me to be in the air. It is prolonged for just about the same duration as the "bleating" of the Snipe; and also there is just about the same interval between its repetitions. It is deep, is full in volume, is tremulous, rises slightly in the scale, and also increases in loudness from beginning to end. It is surprisingly powerful; we usually find it difficult to hear birds distinctly here because of the noise of the waterfalls, but this particular call is clear and distinct above everything, being as easily heard as the hooting of the Owl.

The call begins just as it is growing dusk and the spells last sometimes for perhaps half-an hour. I have not heard it in the daylight (nor as yet at night), so I have never been able to see the bird when calling. Saunders' 'Manual of British Birds,' 2nd Ed., p. 516, says: "During the breeding season Water Rails are very noisy, uttering a loud Cro-o-o-an, called 'sharming' in Norfolk." But this would seem to refer not to this, but to another—the well-known "explosive" call of the Water Rail. The term "explosive" comes from Stevenson, who in turn took it from Lubbock's 'Fauna,' which he quotes. Stevenson says 'Birds of Norfolk,' II, p. 407: "On the 17th of July, 1869, between twelve and one in the morning, I listened to the cry of this bird at intervals for more than an hour on Surlingham Broad, and with a thick, white fog enveloping the reed-beds and marshes; the sound struck me as far more resonant or explosive than I had ever noticed before." But no writer whose works I have here, excepting Prof. Newton, gives any hint that he is referring to the particular

note we are trying to describe. I think there is no doubt that the ordinary loud and sufficiently startling call of the Water Rail is the sound they mean. The attempt to syllable the voices of birds is seldom very successful, and certainly this prolonged, deep, and somewhat musical note could not possibly be so conveyed. This letter is not written in the belief that it is describing anything new, for certainly this most remarkable sound must be perfectly well known not only to many field naturalists but to all those who frequent the marshes, and known as the voice of the Water-Rail. But in the case of so secretive a bird it cannot often, I think, be heard so close at hand. Among all the sounds of spring or summer it might well pass at a little distance for the croaking of frogs, as doubtless I myself must often in other days have taken it to be. I do not know how many pairs of these birds there are here; I have seen three at once. In conclusion, I will only add that if any ornithologist who does not know this singular call and has a night to spare would care to come down, I should be delighted. Although things seldom come off just when they are particularly wanted to do so, I think it is safe to say that he would certainly see the bird feeding, and with any luck at all would hear as evening fell the strange call of the Water Rail.

*Ashford Chase,
Petersfield.*

MORE ABOUT BIRDS IN THE BALKANS.

From 'The Balkan News.'

The birds of prey are wonderful, and there are several kinds, which I have not been lucky enough to have in my hand, and which I admit I am defeated by. In addition to X's list I have seen Spotted Eagles, one pair of Eagle Owls (in one place only), and Short-eared Owls, which are very common by the plains in spring. That well-known Macedonian hunter, Sandy, last year shot a Lanner Falcon, and gave it to me.

Another interesting bird found on the Doiran front and also near Lake Langaza is the Pigmy Cormorant. It is unknown to

Great Britain. Other birds which I have seen here, exclusive of those mentioned by X, are: Missel Thrushes, Fieldfares, Redwings, Common Wheatear, Black-throated Wheatear, another Wheatear, Whinchat, Stonechat, Pied Wagtail, Blue-headed Wagtail, Pipits, Golden Oriole, Red-backed Shrikes, Spotted Flycatcher, Swallow, Martin, Sand Martin, Swift, Jay, Night-jar, Cuckoo, Great Spotted and Green Woodpeckers, Ruddy Shelduck, Stock Dove, Quail, Great-crested Grebe, Moorhen, Jack Snipe, Curlew, various Gulls and Terns, not forgetting our old friends the Storks and Pelicans.

The following have been seen, but not by myself: Tufted Duck, Pintail, and Osprey.

It would be of great interest to many if one of our Struma bird lovers would tell us about birds on that front, where I hear there are Pheasants. Has anyone ever seen a Hedge-Sparrow or Yellow-hammer in this country?

DORMANT STARLING.

II.

"X" sends the following in extension of his article:

The puzzle of the mysterious Ducks has been solved, and it is regretted that an incomplete description did not lead to their identification through the present columns.

The first was a ruddy Sheldrake or "Brahminy Duck," and the second was a Smew. The writer is acquainted with the goosander species, of which two were seen in the great February snowstorm on the lake shore.

Greylag Geese have been fairly numerous during the hard weather in the Brest marshes, and the smaller white-fronted geese less frequently.

The Tree Duck closely resembled "*Dendrocygna viduata*" and were stray birds from Africa, it is presumed. Their sharp claws were typical of their kind.

The paragraph relating to the Harriers was obviously misprinted and "Berserk" rightly interpreted the true meaning.

With regard to the Cormorants on Lake Doiran, the Pigmy Cormorant is the commonest, then the true Cormorant, and rarest the Shag. The Little Bustard is not so often seen in our plain as the Great Bustard; both birds are most wary and cannot be approached

by ordinary means. On the wing the Little Bustard appears to me more like a great grouse or black game.

To the previous list must now be added as inhabiting the environs of Doiran Lake:

Cirl Bunting, Meadow Bunting, Common Sparrow, Tree Sparrow, Spanish Sparrow, Quail, Water Rail, Spotted Crake, Sandpiper, Curlew, Whimbrel, Common Starling, Purple Starling, and Jay.

The vernal migration has begun, Geese are flying north in great numbers, no longer halting by the Lake, but crossing the Belasitza mountains, and Green Plover, Crows, Jackdaws, and Starlings are following in their wake. Quite a number of Bitterns have arrived and apparently are preparing to nest, as are also the Black Vultures. Partridges have paired everywhere, also Cormorants, Owls, and Harriers. The shotgun will have to cede its place to the blowpipe!

W. D. M. ("X.")

THE LONG-TAILED TIT (*Acridula caudata*).

By P. F. M. GALLOWAY.

This species is fairly plentiful and can be seen during any country walk.

These birds keep in flocks during the autumn and winter months, sometimes as many as fifteen to twenty in a flock, but by the middle of March they break off into pairs and begin to build almost at once.

I have often found the nest commenced by the 25th of the month.

They do not select any particular building site for the nest; sometimes it is built in a hawthorn bush, or a hedge, a holly bush, wild honeysuckle, in the fork of a tall ash or oak tree, or in a furze bush.

The nest is the most beautiful I think of any of our native birds.

Last year I stood only six feet from a nest which was being built in a branch of furze on a common near here and watched the

birds come every few minutes with building material; they took no notice of me. I had a splendid view of them at work. (See photo. facing p. 175, April number.)

These little architects brought small pieces of sheep's wool and fine moss, at other times they brought the empty bags that had at some time contained spider's eggs.

The birds hop into the bottom of the nest, place the material in the bottom and fix it there; then they pull it up from this point and weave it over the edge, the bird stretching its neck well over the outside of the nest; this they continue to do until it is built up to the entrance hole at the top. A great number of small pieces of lichen are brought and fixed on the outside, and when the structure is completed the whole of the outside is covered with it.

The lining is composed of small feathers of various kinds—Fowls, Ducks, Pheasants, etc. Such a great quantity are used, that if a nest has been torn out and the feathers strewn about any one who did not know it was a nest would think that someone had been busy plucking a fowl.

The eggs number as many as ten, but more often I find the nests contain eight.

The young as a rule are ready to fly by the third week in May.

They are fed upon small green and other hairless caterpillars principally, but occasionally the parent birds will bring them spiders and small winged insects.

On two or three occasions I have seen four adults visit the same nest at one time with food for the young, and I feel sure that the nest, only containing eight young, belonged to one pair; the others might have been unmated, probably two cocks or two hens, and hearing the call of the others joined them. I have never seen any other species do this.

Another curious thing sometimes occurs with the hen bird whilst incubating; the long straight tail becomes bent. I have seen them when off the nest, with their tails bent, forming quite a half circle, which looks very odd when the bird is flying.

They are very hardy birds, although small, and can stand the cold well, being extremely active; but the slaughter of this species this winter has been very great; in fact, never in my life have I seen

such a winter of destruction. The winter of 1881 cannot be compared to it.

I think it was in 1895 that we had quite six weeks' frost, and skating was enjoyed on the Thames for a long time, the destruction to vegetation and bird life was not to be compared to that of this winter.

The cause this winter was through the very strong easterly gales accompanied by thirty degrees of frost; it penetrated everything.

I have seen in this neighbourhood since the weather has been milder whole commons even of furze turned brown and the bigger part of it dead, holly trees and laurels killed or withered up on the easterly side.

Blackberry leaves that are mostly green during the winter are everywhere on hedges or in woods, hanging limp and of a sickly brown shade, as if they had had a poisonous gas blown over them.

During March I have been many miles round this neighbourhood (Reading) both in Berks and Oxon. I have visited scores of places where in ordinary times it was a common thing for me to see flocks of Long-tailed Tits, but I have not heard nor seen any, and I don't know anyone about here that has: they all tell me they have not.

It is not a case of a few being killed, but I am convinced that every Long-tailed Tit has been killed, at any rate, in this neighbourhood.

These birds do not roost in holes or old nests like Jenny Wrens, or other species of tits, but always on an open bough.

They search for food from daylight to dusk. I once saw a flock shoot down when nearly dark into a leafless hazel-nut bush in winter time. I was standing within a short distance of them, and it was very interesting to watch them go to roost.

They were on various parts of the bush and were busy for a short time preening their feathers; then a few settled side by side on the bough, and one by one the others joined them; the outside ones kept jumping on the centre ones and wriggling down between them for the warmest place until darkness set in.

It will be easily seen how the intense cold easterly gale killed

them this winter, probably blowing them off their exposed roosting-place during the night.

In spite of the bitter cold this winter, all my Long-tailed Tits are in fine condition, as they can always rely on a supply of suitable food.

I feed them on my soft food ("Life") to which is added a little York cheese chopped finely and a few mealworms killed and cut into small pieces, and a few gentles, and live fresh ant cocoons in summer in place of mealworms.

My Gold-crested Wrens, seven in number, which I have had since the middle of October last, are fed in the same way, and are in splendid trim, and the cocks are singing one against the other nearly all day.

The Long-tailed Tits become very tame in captivity, but they require a large cage for exercise, and two or three birds should be kept together, as it is their nature to associate in little flocks.

SOME TASMANIAN BIRDS' NESTS.*

By H. STUART DOVE, R.A.O.U., West Devonport (Tas.).

Birds' nests may, for convenience, be classed under several heads—the *pensile*, swung by the rim of the nest, in which the eggs, and later the nestlings, are rocked by the winds; the *suspended*, in which the structure is held at the sides only, without support from below; the common or *supported* type, in which the nest is placed on a branch or in a fork or niche; and the *ground* nest.

A good example of the pensile style of building is the nest of the White-eye (*Zosterops dorsalis*). These smart little birds are familiar to all in gardens and orchards, or among the patches of scrub by the beach, in their greenish and buff colouring, and with their sharp, ringing call-note, as they dash in small companies through the bushes. In New Zealand a common name for this species is "Blight-Bird," on account of its beneficial habit of patrolling the orchards in winter time and picking off the woolly aphids and other pests. The swinging type of nest, such as is built by this bird, is not common in temperate climes, being specially

* From 'The Emu' (with acknowledgments to the Editor).

adapted to puzzle those inhabitants of tropical countries, such as monkeys and tree-climbing snakes, which have an irrepressible craving for eggs and nestlings. Except the nest of this species and those of the Strong-billed Honey-eater (*Melithreptus validirostris*) and Black-headed Honey-eater (*M. melanocephalus*), I know of no other in Tasmania whose structure is truly pensile—*i. e.*, sewed by the rim to supports, otherwise swinging clear like a hammock. The Spinebill Honey-eater (*Acanthorhynchus dubius*), however, will occasionally adopt a similar form. In a scrub near Launceston (Tas.) the nest of a pair of these elegant little Honey-eaters was swung by the edge from slender twigs of tea-tree (*Melaleuca*), but there was also a small twig at the back which gave some support, and another ran horizontally beneath.

The two nests of the White-eye here briefly described were found while I was living among the scrubs near Table Cape, North-West Tasmania. (*a*) Swung by the rim from a very frail fork of the *Melaleuca* or Swamp Tea-tree, the supports being barely one-sixteenth of an inch in thickness, so that the total weight of nest, young, and parent must be very slight. The opening of the little cup was almost elliptical in form, the measurement of the egg cavity, $2\frac{1}{2}$ in. by $1\frac{1}{2}$ in., 2 in. deep, swelling out under the rim like an inflated ladle, and with rounded bottom. The material was very fine shreds of stringybark from the eucalyptus of that name (*E. obliqua*, L'Her), with somewhat thicker strips underneath, the rim being sewed to the twigs by threads of bark fibre and spider-web; a few spider-cocoons were stuck on the outside of the nest, and the lining was of horsehair. The contents were three eggs, of a delicate blue tint. (*b*) Bound to two very slender *Melaleuca* twigs in the same way as (*a*), the ends of the twigs swinging quite freely; nest rounder at top and more open, not so deep; measured $2\frac{1}{4}$ in. by 2 in. across top outside, $1\frac{1}{2}$ in. inside; formed of coarse, dry grass, lined with fine grass, a little green moss worked in, and many white spider-cocoons stuck on outside; bound to twigs with grass-blades and spider-web. A very loose structure, not nearly so neat as the bark cradle; but both were so frail that they could be seen through at almost any part. Neither had the slightest sign of any support other than the very frail horizontal swinging twigs.

A beautiful example of the pensile type of nest was found while Mr. H. C. Thompson and myself were exploring the slopes of Mount Arthur, in North-East Tasmania. There, in the head of a dogwood tree (*Pomaderris apetala*, Lab.), 30 ft. from the ground, was found the nest of a pair of Strong-billed Honey-eaters (*M. validirostris*), a species peculiar to Tasmania and its adjacent islands. The nest was hanging from dogwood twigs, to which it was bound by fine strips of stringybark. It was formed entirely of the same bark, and lined with soft brown material from the crown of the Dicksonia tree-fern, which grows in those forests. The nest contained three beautiful eggs of a pinkish tint, spotted with dark red, mostly at the larger end. The ground colour of one egg was much browner than that of the others. Curiously enough, a pair of the shade-loving Pink-breasted Robins (*Erythrodryas rhodinogaster*) had built in a fork of the same tree, 13 ft. from the ground, a very beautiful home of green moss, covered on the outside with grey lichens.

The other pensile nest-builder, called the Black-headed Honey-eater, also peculiar to our island and adjacent islets, generally uses wool as material, with some moss and spider-cocoons; they may line with fur or with feathers. The nest is suspended among the pendulous twigs at the extremity of a gum-branch—the white gum (*Eucalyptus viminalis*) being the one usually selected—and is so buffeted by the winds that it is often topsy-turvy, but the brave little mother bird “sits tight,” so that the eggs or young are not thrown out. A nest of this species found in North-West Tasmania by Dr. Holden was composed of green moss and spiders’ web, the lining being of fluffy seeds. The dimensions of one nest were: Egg cavity—width, $1\frac{3}{4}$ in.; depth, $1\frac{3}{4}$ in.; outside dimensions—depth, 4 ins.; width, 3 in. Both this species and the Strong-billed Honey-eater usually lay three eggs to a clutch. The eggs are of a delicate flesh tint, marked (chiefly about the apex) with rich reddish-brown spots; those of the latter are somewhat the larger, about .88 by .66, while an average egg of the Black-headed Honey-eater measures .78 by .57.

Of those structures which are *suspended* among vegetation, one of the best examples is that of the Reed-Warbler (*Acrocephalus*

australis), a migrant, which usually comes to us in September. The nest is generally placed in reeds, about 2 ft. above the water, and is bound to three or four stems, which pass through the sides of the structure; the material is stems and leaves of aquatic plants, or coarse grass. The lining is sometimes fine grass, sometimes the soft down from seed-vessels of the "bulrush" or reed-mace. These migrants are plentiful near Launceston, and build in the reeds which line the North Esk River. The railway sheds are close to the river, and the Reed-Warblers which nest in that vicinity avail themselves freely of the cotton-waste used for cleaning engines, quantities of which are strewn about outside the sheds. Mr. H. C. Thompson showed me a nest composed almost entirely of this soft, warm material. When in Victoria I was somewhat surprised to find a nest of the Reed-Warbler at a height of *eight feet* from the ground, bound to two stout upright twigs of the exotic shrub *Sparmannia africana*, Linn., close to the edge of a lake. The nest was formed of grasses and lined with the seed "wool" of the reed-mace (*Typha*). Another nest was found in a clump of bamboo, 5 ft. above the water-line, where two smaller shoots forked out from the main stem, and was tied to all three. A third example was 4 ft. above the water, in a bamboo, and was most unsymmetrical, one side being much bulged with a large knot of fine grass which had been teased out and then stuck there. The structure was tied to four small stems, but not to the main one, and contained two young birds, blind, and devoid of down, but with tiny quills just beginning to sprout.

An interesting example of the *supported* nest was that of a pair of Flame-breasted Robins (*Petroica phoenicea*), found in the second week of November while I was on a trip to Mount Arthur, mentioned previously in connection with a pensile nest. The Robins' nursery occupied a niche, about 5 ft. from the earth, in the trunk of a giant gum-tree, and was formed of fine bark strips and lined with small feathers. We admired the manner in which the architects (which were young birds, for the male was grey, like the female) had brought tiny fragments of charcoal from the interior of a burnt-out tree near by, and bound these round the outside of their nest with cobweb. This caused the nest to harmonise

with the charred surface at the back of the niche above it, thus making it appear but a portion of the tree-trunk.

In the course of the same trip a nest of the Large-billed Ground-Thrush (*Geocichla macrorhyncha*) was found, placed upon the top of a large gum-tree stump, at a height of about 5 ft., and screened by a copse of young dogwoods (*Pomaderris*). It was composed of dry grass and green moss, and contained two eggs. From my journal, kept while living in the bush within a few miles of Table Cape, is culled the following: "Nest of the Ground-Thrush (*Geocichla*) discovered to-day (October 10th) in the fork of a large dogwood (*Pomaderris apetala*, Lab.), about 10 ft. up. A large, beautifully-round structure, taking up the whole space within the fork, and composed of green moss and fibres plucked from the trunks of *Dicksonia* tree-ferns. Within were two fine eggs, of a greenish tint, blotched all over with dark red." This Thrush is fond of the site of an old nest, and will sometimes build on the same foundation season after season until the structure outside becomes of a great size, although the egg cavity itself may be under 3 in. in width and 2 in. in depth; the eggs are usually either two or three in number, rarely four, and an average measurement would be 1.35 in. by .92 in.

On the occasion of a trip along the banks of Distillery Creek, near Launceston, on October 21st, a nest of the Ground-Thrush was noted in the scrub above our heads, on the top of an old home of the Ring-tailed Possum (*Phalanger*). Upon the mass of sticks which had been brought together in a former season by the marsupial, the Thrush had constructed a large, circular nest of grass, and lined it with soft green grass, but so far no eggs had been deposited. Another nest was found only 4 ft. from the ground, built on dry gum-twigs which had fallen on to a bush; a dirt base had been placed upon the twigs, then a nest of grass with a little moss intermixed, and lined with grass. Where moss is easily obtainable, the Ground-Thrush is fond of using it in profusion, giving a most pleasing appearance to the nest.

While exploring a hill not far from Launceston, a friend and myself found a patch of the scrub sometimes known as Pinkwood (*Beyeria viscosa*, Miq.), belonging to the Euphorbias. Some of the

bushes had been killed by a running fire, and when scorched in that way the *Beyeria* has the habit of curling and twisting together at the apex, so as to form a thick mass, much in the same manner as the Jamwood Acacia of Western Australia is described as doing. About 10 ft. from the ground, in one of these twisted shrubs, a pair of Brown-rumped Tit-Warblers (*Acanthiza diemenensis*) had built a domed nest, with side entrance. It was woven of grass and moss, the lining being mainly composed of feathers of the Rosella (*Platycercus eximius*). In another bush of the same kind, near by, was the little cup-like nest of a pair of Fantail Flycatchers (*Rhipidura diemenensis*), known to boys as "Crazy Fans," from their erratic aerial evolutions when capturing insects. The nest, which was about 5 ft. from the ground, was made of small fragments of white decayed wood, very light and delicate, a little moss, and bound, as usual, with spider-web. A small branch of the shrub passed through the bottom of the nest, and on this and around it the structure was placed—the tiny cup above, the irregular tail, about 3 in. in length, below. This peculiar appendage, the use of which can be only guessed at, is also formed by the mainland White-shafted Fantail (*Rhipidura albiscapa*, Gld.), but in our island species, known as the "Dusky Fantail" from its darker tint, it sometimes reaches a great length, nests with a "tail" of 6 in. having been found; I have heard of one even 7 in. in length. The egg cavity is not usually more than $1\frac{1}{2}$ in. across, and less in depth. It is often lined with the reddish fruiting-stalks of moss. The "Crazy Fan" may sometimes be touched, even stroked, on the nest; perhaps the most confident of our small birds, fluttering about a pedestrian on the bush-track or by the wayside in order to capture the flies, small moths, and so on, which are disturbed.

(To be continued.)

NESTING OF THE RED-HEADED BULL-FINCH (*Pyrrhula erythrocephala*).

By HERBERT BRIGHT.

It is just a little over two years since I received my pair of Orange-headed Bullfinches, and I remember I was somewhat disap-

pointed with their colour, as they were described to me as Red-headed Bullfinches. The cock was yellowish-green on the head and the hen only very drab and dingy in colour. Still, they were a novelty and very attractive, so I thought I would do all I could to get them in good condition with the hope of inducing them to nest out of doors later on. I have not been successful in rearing any young, but they have nested several times, and once hatched and fed young for several days.

I have had them out of doors two summers, and their mode of procedure has been much the same each year. In May, 1915, when I first put them out, they seemed as though they were going to build right away, and at once made a nest on the bough of an apple-tree nailed against the back wall of the aviary. I did not notice the starting of this nest, which was composed of coarse twigs at the bottom and finer ones on top. This was never completed, though the birds used to fly to it and visit it for a long time.

Both cock and hen then began a slight moult about the head and face, but the new feathers were much the same as before, probably because they had not been out long enough to affect the plumage. I had hoped they would brighten up considerably. Nothing happened for some time after this though they appeared in the pink of condition, till one evening I noticed the hen fighting hard to break off a rather stout apple-twigg, which she eventually succeeded in doing, and flew off with it to the top of a privet, where she placed it and flew away in search of another.

The cock was in attendance all the time, but she would not allow him to come very near, and though he was greatly interested he did not assist in the work of building the nest. The hen proceeded to collect more strong twigs for a foundation, and though she worked hard till dusk there was very little to be seen beyond a few insecure-looking twigs at the top of the privet. In the morning, however, on going to inspect I found she had built quite a nice nest much after the style of our own "Bullies," using finer rootlets for the upper portion, and she was sitting inside the nest shaping it round to her liking. Throughout the day she was busy adding to it, and then proceeded to line it with some fine white fibre I had put in for general use.

She made an excellent nest, and the interior looked as though turned out of white wood ; it was so smoothly arranged in place.

They had selected the most exposed spot in the whole aviary, right in the open and close under the top wire-netting, so I was not nearly so satisfied as the birds evidently were. Eventually I got my man to climb on top and fix a square of glass right over the nest to protect it from cats and weather. They did not seem to mind in the least.

The hen did not lay for a day or two after this and then deposited four eggs in the nest, the last being laid about a week after the nest was apparently complete. She used to fly off about the same time every morning for a few minutes, so we could see into the nest by climbing a ladder at the back of the aviary. The cock was most attentive all the time they were sitting, and would feed the hen whenever she permitted him to do so.

One morning on returning to the nest I noticed the hen feeding, and this continued for three days, but on returning to the nest on the fourth day she only remained a minute and then flew off again, but returned again. Expecting that something had gone wrong I got my man to inspect, and he found the nest empty except for one fertile but crushed egg, so this was the end of this attempt.

I thought they were going to resume operations, but both went into a thorough moult and I was glad they did. The weather was warm and sunny and they had a most satisfactory moult, emerging many shades richer and brighter in colour, and not like the same birds, more particularly the cock. He was now a real Orange-headed Bullfinch.

I took them indoors for the winter and put them out again last May, when they made a beginning at nesting as before, but were some months before they started properly. This time they built in a holly, and I never thought the nest would be built, as most of the material fell several inches below the desired spot, but eventually a large pile of material was collected and gradually a foundation was formed and the nest built. Three eggs were laid this time, all fertile, but they failed to hatch out, and the birds built a fresh nest and sat again with the same result.

It was now late in the year, and as they had not attempted

to moult I took them in and they fell into moult, but from the effects of being indoors they have lost a great deal of the bright golden colour they had last year. They are at present flying in a large cold room, and I am hoping presently to put them out and try once again if they will succeed in rearing a brood of young ones.

They used to live mostly on privet buds and sunflower, but would take toll of almost all the green food that was about. They are very tame, and would always come for a bite of any green food from one's hand though the aviary was full of all kinds of growing food. If I have better success this summer I hope to see them at later.

THE DISPLAY OF THE BLUE WREN (*Malurus cyaneus*).

By HUBERT D. ASTLEY.

Since writing in the March Magazine on the subject of the moult of my male Australian Blue Wren, I have had the pleasure of witnessing his display in full breeding plumage, since the Zoological Society of London has kindly sent me a female, the only individual of the species at the Gardens.

When this little bird arrived, I let her out of the travelling-box into the cage occupied by her future mate.

Hardly had he set eyes on her than he commenced a display evincing extreme joy and passionate love.

Tightening up the body feathers, so that he looked half his usual size, the blue cheek feathers became whiskers which stuck out at right angles from the face; whilst, dancing round the female, he twisted his upright tail from one side to the other, his legs at the same time appearing longer and more slender owing to the compression of the body feathers. And this he did for ten minutes or more, as I stood close to the cage, when he had hitherto evinced great skyness and even timidity.

Throughout the first afternoon he repeatedly chased the hen about the cage, so much so that I began to think I should have to remove her, but the next day his first intense excitement had abated,

and singing his little tinkling song the little couple roosted side by side in the evening. A very charming sight.

Bye-the-bye! the so-called black areas of the male are not black at all. In sunshine they are a true deep blue, and not merely bluish lights on black; at any rate on the breast.

IS THE BIRD KNOWN?

By AN OLD AUSTRALIAN BIRDLOVER.

Amongst the many treasures which Mr. Ward recently brought from New Guinea were some little Finches, which, along with four species of Birds of Paradise, New Guinea Minahs, and Starlings, I was able to acquire. Looking through such records as are available to me, I cannot find mention of this particular Finch, and for this reason propose to give a description of it in the 'Avicultural Magazine.' Those collectors of New Guinea birds, who have introduced the various species of Birds of Paradise into England, may also have brought home this pretty and interesting little Finch; on the other hand, not being so gorgeous as the New Guinea birds generally are, it may have been overlooked by them, and this may be the first time the species has been introduced as living specimens in captivity. Undoubtedly the bird is a "nun"; it certainly has all the characteristics of that species. In the aviary they are peaceful and keep to themselves; they love to balance themselves to and fro on the slender shoots of the small bamboo, off which they strip the tiny leaves, probably because the juice contains a good deal of sugar. Mr. Ward tells me that he has seen them in flocks between a dozen and a thousand. They would enter the cages of his Birds of Paradise and be duly killed by them. They inhabit the flat grass country not far from the coast, living on the grass seeds. They nest in small trees on the edge of the scrub not more than twenty yards from the clearing. Mr. Ward tells me that this is the only Finch plentiful in British New Guinea, though he says he knows of another very gorgeous one, which is scarlet with large white spots at the sides, the size of the Australian

Diamond Sparrow.* However, to come back to my Finches; the is the description :

Head, back of head and throat light silver-grey, shading along the throat towards the abdomen from a dark grey to a sooty-black. Wings and back dark brown; the two outer tail feathers sooty-black: the three next ones sooty-black one side only, edged with old gold, the two middle tail feathers edged on both sides with very bright old gold. Vent feathers sooty-black, tail coverts a beautiful bright old gold, almost yellow. Bill and feet dark leaden-grey. Underside of wing very light grey, shading down under wing to light fawn. Size of bird $3\frac{3}{4}$ in. from tip of bill to tip of tail feathers, measurement round body, taken over wings, $2\frac{3}{4}$ in. The eyes are coal-black. The hen just like the male, except that the grey is more ashen, not so silvery.†

This reminds me to mention some new Quail I received from the same source, quite distinct from any I have had or seen. The colour is absolutely ash-grey, the male bird only showing the fine pencilling of the feathers usual in the plumage of Quail; the size is a trifle larger than the King-Quail.

OBITUARY.

Perreau.—We very greatly regret that the war has claimed another of our members as a victim. Major G. A. PERREAU has been killed. There was no one more enthusiastic and painstaking in aviculture. On more than one occasion he brought from India many insectivorous birds rarely seen in captivity, and which he had himself caught in the hills, some species being new to aviculture. We can ill afford to lose one who was not only a keen aviculturist, contributing to our Magazine from time to time, but who also impressed those who knew him with the courtesy of his manner and the diffidence with which he imparted his knowledge of the Indian birds that he so delighted in.

* [This sounds like something worth having.—ED.]

† Apparently *Munia caniceps*.—A. G. B.

CORRESPONDENCE.

INDIAN PARRAKEETS.

SIR,—In reference to Mr. Ezra's lutino Indian Parrakeets, it may be of interest to call attention to the fact that such rarities were known to and described by some of the earlier writers. Latham's "Jonquil Parrakeet" was a yellow Blossomhead (*P. cyanocephalus*), while Shaw, under the name of "Sulphur Parrakeet," described a similar variety of the Rose-ringed Parrakeet (*P. torquata*).

The "Blue-headed Parrakeet" (Edwards) and "Azure-headed Parrakeet" (Latham) referred to the same bird, a partial lutino Blossomhead, that is, one with yellow spots on the wings.

Mr. Brook, I also see, has a yellow Amazon in his collection. I have seen, especially at the Canary Islands, many Amazons nearly all yellow, but of course without pink eyes or other lutino attributes. The yellow extends over more or less of the body, with the proper green showing in an irregular patch here and there. These I have always understood were fakes, the result of rubbing some kind of juice into the body of the young bird. Is that the case?

South Bank, Gambia.

E. HOPKINSON.

CAPACITY IN NEST-CONSTRUCTION.

DEAR SIR,—In Dr. Butler's interesting article on 'Capacity in Nest-Construction' he states that with the Ploccine Weavers the male is unable to finish the nest without the assistance of the hen. This is certainly not the case with those of the Hyphantornine group, as with all those that I have kept, including *cucullatus*, *abysinnicus*, *olivaceus*, *velatus*, and others, the male is able to weave a very perfect nest, without any assistance from the hen whatever. In fact, in my experience, it is only very rarely that the females take any interest in the nest until they are about ready to lay. In some cases they line the nest with a few feathers but quite as frequently accept it just as it is. Some of these nests are most enduring. I remember one, built by my large white-eyed Olivaceous Weaver—now alas! no more—that hung from the unsheltered roof of the aviary for over eighteen months, and when it at last collapsed it was still quite waterproof. Most of my Weavers of this type build duplicate nests, which they use for sleeping in at night, and I don't think that there is any doubt but that they are built for this purpose.

With reference to Mrs. Lee's mousetrap, I would warn your readers that the 1 in. holes in the box covering the breakback traps are too large. Small birds, like Zebra Finches could easily find their way in, and would quickly share the fate of Miss Alderson's pet robin. In other respects the plan is a good one, and one that I have used for several years.

Yours etc.,

Boyers House, Westbury.

WILLIAM SHORE BAILY.

SIR,—I note Mr. Shore Baily's letter in this number (*vide supra*) and it only shows how important it is for none of us to be too dogmatic. In the case of *Ploceus* I had males of both *P. baya* and *P. manyah*, but no females: a

good many nests were built at different times by these birds, but not one of them was ever completed, all were deficient in the cup and entrance tube. In the case of *Hyphantornis* I had a male of *H. cucullatus*, both sexes of *H. melanocephalus*, *H. capitalis*, and *H. vitellinus*, and in all cases where nests were completed in my aviaries both sexes (not, however, always of the same species) were present. A. C. Stark, in the 'Birds of South Africa,' distinctly states that both sexes of *H. velatus* combine in building the nest, the male sitting outside and the female inside; and I am sure that I have seen pairs of my birds engaged in constructing the cup. But it is interesting to know from Mr. Shore Bailey's observations that males of *Hyphantornis* are capable of completing the work without the assistance of their wives.

A. G. BUTLER.

THE MANED GOOSE.

SIR,—I was much interested in Mr. Wormald's account of his Maned Geese and congratulate him on his most excellent drawing of this charming little goose, one of the most attractive species of waterfowl that I know. Mr. Wormald says he is not aware that the Maned Goose has ever bred in this country. If he looks up his back volumes of *The Avicultural Magazine* he will find in the volume for 1910, on p. 335, a note on the waterfowl bred in the Zoological Gardens that year, and amongst a number of youngsters mentioned are two young Maned Geese. At that time it evidently did not occur to me to give a fuller account of this interesting event which I hoped would be repeated, but I will try and make up for the omission now.

In 1908 I brought home two pairs of these little geese from Australia, where it is known as the "Wood Duck," and as they seemed, unlike most of their tribe to be quite inoffensive and could be safely trusted with ducks, a pair was turned loose on the Three-island-pond when I took charge of the bird department in the following year. In the spring of 1910 the female was seen to visit in turn nearly all of the nesting boxes that were fixed at a height from the ground.

It is our custom to periodically visit the islands and collect any full clutches of eggs or eggs that appear to have been forsaken by the birds with a view to incubating them under hens, and on one such visit in May we discovered in a box fixed about 3 ft. from the ground with a tree-trunk forming a ladder thereto three eggs which looked like small geese's eggs and which we thought must belong to *Chenonetta jubata*. They were of a creamy white colour with a glossy surface but as they did not look particularly fresh we thought it best to take them in case the bird had no intention of returning and laying more. We placed them under a small hen which duly hatched all three. One was a weakling and died on leaving the shell, and I have its skin before me as I write. It is of a mouse-brown on the upper surface, darker on the head. The throat, cheeks, and under-surface generally are yellowish white. A whitish line passes from the base of the bill over the eye and another below the eye, passing to the back of the cheek, where it joins the white of the lower part of the cheek. There is also a whitish patch on the inner edge of the wing and another at the side of the base of the tail.

The other two goslings were successfully reared without difficulty. They commenced to graze at an early age and grew very rapidly, both proving to be males.



ROBIN
(*Erithacus rubecula*).

The parent birds never bred again, though each spring they made a round of inspection of the nest-boxes. Now, alas! the stock has died out.

Zoological Society, Regent's Park.

D. SETH-SMITH.

SIR,—Those of our readers who are fond of wild birds may be interested to hear that others besides “Billy,” the Great Tit, will now perch on our hands to be fed. “Zit,” the cock Robin, comes regularly, and stays for quite a long time. He seems to prefer feeding from my hand *if I have gloves on*. A few days ago, after eating what he wanted, he still sat on, and broke into the sweetest whisper of a song, very low and clear, by way of thanking me. It was so pretty to watch the quivering of his small throat as he sang. Twice “Zit” and “Billy” have had a fight on my hand, one bird being already there and the other coming to drive him off. Of course it ended that *both* went, as a human hand is no platform for a boxing match. “Billy” follows us all over the garden; we have only just to call him on, and he flits from tree to tree. Besides “Billy,” another Great Tit (who is lame on one foot) will come readily to feed from our hands. This bird has not come so much lately, and we think it is “Billy’s mate, and that she is sitting.

Four other Great Tits and one little Marsh Tit are getting *very* tame, and want to come badly. They make efforts that so far fall just short of their object, but I do not think the Marsh Tit will be long in coming.

Of the pair of Blue Tits, only one comes on our hands, and it is tamer with my brother than with me. The hen Robin lingers about, but is very shy. Practically all the food I tame the birds with is some pieces of ground pea-nut, old and mouldy, and not good enough for the aviary birds. If we had only more time to spare we could get the wild birds much tamer, but we can only give them a minute or two now and then. I think the severe and long winter has made the birds more fearless. It is April 10th to-day, and the ground was white this morning with last night’s snowfall.

Faithfully yours,

R. ALDERSON.

EARLY FRENCH AVICULTURAL LITERATURE.

SIR,—I find that my anonymous correspondent, who most kindly sent me some particulars about a very early and very interesting French work on Canaries, is our member Monsieur P. A. Pichot. He has since been good enough to write me further particulars which are well worth recording, and, I may add, has also procured for me a copy of the 1766 edition, thereby putting me under an obligation for which I have tendered my grateful thanks.

As I surmised, this old work antedates the ‘Fancyer’s Delight’ by several years, and Mr. Pichot mentions two treatises of an even earlier date. The fact that the German name for an aviary is a French word (“volière”) suggests that the Germans were not the first aviarists in Western Europe, and Hervieux claims that Paris originally received the Canary direct from the Canary Islands and acclimatised it. Nevertheless, Hervieux fully supports the statement, which I quoted from the English work, that the Germans supplied trained singing Canaries to a great part of Europe. To quote his own words: “Thus it comes about that

they are called 'Serins de Canarie,' although we obtain a supply of them from Inspruk (Innsbruck), the capital of the (Austrian) Tyrol, and from many other towns in Germany, which some Swiss (dealers) bring us twice a year."

M. Pichot has also kindly sent me an article he wrote for 'Le Chenil' on the trade in Canaries, in which he mentions that the prices obtained in Paris at the beginning of the eighteenth century ranged from £2 10s. for a "serin gris commun" to £45 for a "serin plein et parfait." No wonder that Gesner and Aldrovandus have recorded that in the sixteenth century the Canary was only to be found in the houses of the wealthy!

M. Pichot writes as follows: "I thought you might be interested to hear of Hervieux's ancient work on Canary-culture. We have some books more ancient still, such as an anonymous work published in 1671 on cage-birds, how to breed, feed, train, and heal them—84 pages, published by Charles de Sercy in Paris. From the same editor there is a treatise on the Nightingale published in 1697.

"I think the first edition of Hervieux's work on Canaries was published in 1709. So says Dr. Loisel in his 'History of the Menageries,' vol. ii, p. 212. Hervieux styled himself 'Governor of the Princesse de Condé's Canaries.' I wonder if he had some official uniform or Court-dress—yellow, I should say! The book has had numerous editions up to 1802, and has been translated in Dutch (Amsterdam, 1762), in Italian (Venice, 1724), and, I think, also in German, but, as bird-fanciers are not always book-lovers, the work is very scarce and seldom met with. It is a very able work and very pleasant to read. My copy is the second edition, 1713.

"I have again quoted from Hervieux in the copy of 'Le Chenil,' which I enclose. You will find in the book that bird-rooms were already appropriated for Canaries and styled 'cabinets.'"

* * * *

"Aviculture has always been a favourite pursuit in France, though specialists have been long without writing about it. Pet animals were quite common in the middle ages, as one may judge from Alexander Neckam's 'De Naturis rerum libri duo' (1211), and there is a very pleasant story in Gaces de la Bigne's 'Roman des Oiseux' of a trained Sparrow-Hawk catching and bringing back alive to its mistress a tame Starling, a very good talker, which had escaped from its cage:

"La Dame eut grande joie et le prist
Qui en sa cage le remist
Mais j' ai depuis oui raconter
Qu'il fut bien un mois sans parler."

"Gaces de la Bigne was Chaplain to King John during his captivity in England (1396)."

The history of cage-birds is probably as old as the history of man. The little feathered "drawer of water" looks modern enough as we see him hauling up his bucket in Selater Street, but he is mentioned by Pliny in the first century.

W. E. TESCHEMAKER.



THE RED-BREADED GOOSE. (MALE AND FEMALE.)
(*Bernicla ruficollis*.)

From a painting in the possession of the Duchess of Bedford.

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THE RED-BREASTED GOOSE (*Bernicla
 ruficollis*).

H. D. ASTLEY.

This goose, which may be said to be the most handsome of the genus, is only known as a rare straggler in Europe, except in the extreme east, but it breeds in Northern Siberia. Several individuals have been killed in Great Britain from time to time. It is of rare occurrence, even in Sweden.

It breeds in Northern Asia, but not much seems to be known about it in a wild state. Mr. Seebohm records ('Ibis,' 1879, p. 159), in his notes on the ornithology of Siberia, that two mates belonging to Capt. Schwanenberg's wrecked schooner, whom he had chartered to collect eggs, were fortunate enough to come suddenly upon a Red-breasted goose on her nest on an island in the Yen-e-say on July 1st, which bird they shot before she flew off, and "unfortunately broke one of the two eggs upon which she was sitting." (Collectors seem to have no mercy. To shoot a brooding bird seems to us ignoble.—Ed.) Mr. Seebohm saw several of these handsome geese on July 28th of the same year, which were on the banks of the river Yen-e-say, in lat. $70\frac{1}{2}^{\circ}$, accompanied by their young broods. That was a few miles south of where the goose was shot on her nest.

The Duchess of Bedford writes from Woburn Abbey: "We imported one alone first, and then ten others two or three years

later from Southern Russia. All arrived in perfect health and condition. They never associated entirely with the first bird, and a week ago (April 7th) I should have said did nothing whatever but walk and swim about in a closely packed flock, showing no desire to pair or breed. Last Sunday, however, for the first time we found several of them very obviously paired, the males, with their neck feathers swelled out, warning off rival suitors ””

THE GOLDEN-CRESTED WREN (*Regulus cristatus*).

By Dr. ARTHUR G. BUTLER.

Although this is the smallest of our British birds, it is also one of the most hardy. In the winter those of its species which remain with us go about in flocks, and in frosty and snowy weather cluster together like bees under yew or pine boughs. Cold alone would probably not kill them, but a long frost, by depriving them of food, would doubtless seriously affect them.

In the summer one sees the Gold-crest in pairs; I have occasionally noticed it in my own garden, although it is more frequently met with in woods, plantations and shrubberies where conifers are plentiful, or in the foliage of yew-trees in cemeteries. It is a charming, lively little bird, with a rather shrill, oft-repeated call-note, and a short, low, but pleasing little song. When excited it expands, but does not erect, the crest on its crown; indeed, I believe it is not capable of erecting it as the Buntings of the genus *Coryphospingus* do their somewhat similarly placed carmine crests.

It is a strange thing that many bird artists do not take the trouble to inquire into the habits of birds which they are asked to depict; consequently, if they only have skins to draw from, they use their own judgments often quite wrongly. As I have elsewhere noted, the South American Grey Cardinals (*Paroaria*) are all repre-

* [We wish to tender our thanks to the Duchess of Bedford for kindly allowing us to reproduce the coloured picture.—ED.]

sented with defined and more or less erected crests, whereas *P. cucullata* is the only species which possesses that character; and the Crested Mynah (*Acridotheres cristatellus*) in vol. xiii, p. 93, of the Museum Catalogue, has been supplied with a solid, unbroken crest from the middle of its bill to the back of its crown, whereas in the live bird the crest is tripartite, commences at the terminal fourth of its bill, where it is densest, and finishes at the back of the forehead.

However, to return to the Gold-crest, it is by no means a nervous bird, and will permit one to get quite near to it before taking flight, and it is a delightful little creature to watch as it examines the twigs and branches of trees, shrubs, and creepers, in tit-like fashion, when searching for insect food. I have at times stood within a foot or two of it without disturbing it, so that one may consider it even more confiding than the majority of Titmice, and almost as much so as our friend the Robin.

The beautiful, soft little nest is usually suspended under a branch of yew or fir, but sometimes in the middle of a furze-bush, or against the sides of ivy-covered trees, in which case it is said to be much less compact. The eggs, according to Lord Lilford, "vary in number from six or seven to ten or more; I once found twelve in a nest."* Is it not possible that where so many eggs are found two hens may have been concerned in their production? I feel certain that such is the case where more than six eggs are found in the nest of the Great Tit, but then that bird is quite capable of murdering one wife and taking on another.

The eggs of the Gold-crest are charming because of their small size. In colour they are creamy-white, more or less densely dusted with rust-red, often most densely at the larger end. They lie in the nest on a bed of small, soft feathers. I do not know the period of incubation, but should guess it to last about eleven days as a general rule.

J. I. S. Whitaker, in his 'Birds of Tunisia,' vol. i, p. 100, says: "The Gold-crest is said to be met with in Tunisia. Malherbe and Loche both record it as occurring in Algeria, and a specimen of it obtained by Loche in that country certainly exists in the Turati

* I should expect a full clutch to consist of ten eggs, as with the smaller Titmice.

Collection of the Milan Museum under the number 17,630. Although recent travellers in North-West Africa do not appear to have met with the species, but only with the Fire-crest, it seems, nevertheless, probable that the Gold-crest also occurs throughout the country north of the Atlas, if not as a resident, or even as a regular winter migrant, at any rate as an occasional visitor in severe winters. In Sicily and Malta, so near the African continent, the species occurs regularly as a winter migrant, and in the former of these islands it is said to be partially resident."

Speaking of it as observed in Great Britain, Dr. Ticehurst says ('History of the Birds of Kent,' p. 44): "It is generally looked upon as a resident species, and, I think, in some localities, where there are plenty of firs affording warm shelter and a sufficient winter food supply, that it may be so. In others which are more exposed to the cold winds, or where other conditions are perhaps less favourable, a great deal of local migration takes place, and probably a good many of these birds leave us and go to the Continent in autumn. Several of my correspondents have remarked on this, and have noted that the birds generally leave in November or December and return in February or March.

"On the other hand, there is very little evidence at present of any extensive autumn migration past the Kent light stations, such as takes place on the western half of the south coast. Not only are there these movements among our local residents, but a considerable influx of birds from northern counties takes place at different times; but the movements appear to be irregular, and dependent on weather conditions and food supply in the places whence they come. These visitors leave by the beginning of April.

"In the county generally the numbers are greater in winter than in summer."

I have always believed that the migratory instinct was greatly influenced by the food supply; indeed, I do not see how otherwise one could explain the tardy migration of some of our British birds when the autumn and early winter months have been mild. The only puzzle is why, when many birds of a species travel to the Continent at the approach of winter, a considerable number should stay behind to struggle for existence against our climate. If birds

were like dormice, and could tuck themselves up warmly and sleep through the cold weather, or if, like insects, they could be frozen hard and then thaw out unharmed in the spring, one could understand their staying behind.*

AN AVICULTURAL MEDLEY.

By DR. MAURICE AMSLER.

There is a shortage of potatoes, sugar, wheat, and mealworms. Now the Editor tells us he has come to the end of his copy. This must be my excuse for inflicting my fellow-members with a few notes of very doubtful interest. Last year some derogatory remarks by secretaries on the gentle as a bird-food caused me to take up my pen with the idea of vindicating this gentle larva (no pun intended); the note was written, but was not deemed worthy of a penny stamp. Now that mealworms are as scarce as ever, their importation from Holland having been stopped (they were really Huns I am sure), the lowly gentle must be the chief stand-by of those who keep insectivorous birds or who wish to breed almost any of the seed-eaters.

A gentle, when in a fit state for bird consumption, is practically free from smell, and is neither slimy nor in any other sense "*loathsome*."

I have reduced the breeding of gentles to an almost automatic science, and as the methods employed are extremely simple, I propose to describe them for the use of anyone who cares to follow them.

In the first place I prefer gentles grown on feathered media—*i. e.* giblets and other poultry offal; also young sparrows, which can be caught by the dozen in a Wyatt's trap.

Fish is extremely smelly, and meat is inclined to dry up, causing the death of the gentles.

* Insects are not necessarily killed by intense cold, as all beetle-collectors know; when they dig up frozen turf in hard winter, thaw it in front of a fire and bottle the insects as they run out. I have also picked up butterflies (lured out by a warm winter's day) lying frozen hard on the snow, and they have recovered speedily indoors.

Having obtained your bait, merely place it in a large earthenware pan in an exposed situation out of the reach of rain. As soon as it is sufficiently blown, as evidenced by numbers of small white grains (the eggs of the blow-fly), cover up your vessel with some fly-proof fabric such as canvas or muslin; the gentles or larvæ appear in from one to three days according to the temperature, and their growth can be retarded or accelerated by keeping them in the shade or sun. I often use an old garden frame to hurry things up when getting short of gentles. A few handful of sawdust thrown on top of the blown meat gives the larvæ a welcome cover and obviates much of the smell; at the end of four to seven days the gentles will be large enough to use, but must first be scoured.

All one has to do is to put a piece of fine wire-netting or a $\frac{1}{4}$ -in. sieve on top of the pan, which is next inverted over a tray containing meal, bran, or "toppings"; in a very short time you will have thousands of gentles free from all obnoxious or putrid meat, many, however, remaining in the meat which can be allowed to grow to a large size.

The gentles and meat can be left in the tray or tipped into a tin box to scour for a day or two, after which they should be sifted out and given a fresh supply of clean meat. Their fitness for bird-food is evidenced by the absence of any central dark line and the almost complete absence of smell.

The scoured gentles will not keep indefinitely, but if placed *without* any meal in a glass jar, which in its turn stands in 2 or 3 in. of water in a cool place, they will remain in their larval state for some ten days in summer and for several weeks in winter; even when they change into pupæ (the small brown chrysalis), most birds will eat them and also use them for feeding their young.

Another larva which I have also occasionally used is the "blood-worm," an aquatic, and, I believe, the larva of the gnat.* My Malachite Sun-birds would eat them although they would not look at mealworms. The minuteness of these insects is perhaps a drawback to their use.

The banana-fly we have most of us tried. Personally I found

* [Not so; the gnat-larva is utterly dissimilar; midges of the genus *Chironomus*.
—A.G.B.]

them difficult to use in an aviary, and I have, moreover, had some trouble in keeping my stock. They are only useful for Sun-birds and suchlike mites. Next to the gentle the "black-beetle" is perhaps the most useful and easily procurable insect, and makes a welcome tit-bit for a Jay or a Waxbill, some of the small, immature insects being smaller than a house-fly.

The cocoons of the wood ant I now collect myself. A coal scoop, a fine wire sieve ($\frac{1}{16}$ in.), and a canvas bag are all the necessary implements for the sport, which is almost as exciting as deer stalking and more dangerous than salmon fishing.

The "eggs" are usually to be found in a large mass, sometimes a pint or more, and almost free from sticks, leaves, etc.; but to obtain them in this clean state it is necessary to open the ant hill circumspectly and carefully, until the nest of eggs is found, when it can be shovelled into the sieve. The bulk of dust and earth can now be riddled away and the eggs and many ants tipped into the bag. Several ant hills can be so treated, all the eggs going into one bag.

On arriving home I empty the contents of the bag into large cardboard boxes—ladies' dress boxes do well, if the eggs and ants are swept to one end of the box—and a few smaller cardboard boxes or inverted flower pots are placed at the other end, the ants will quickly carry their cocoons into them, leaving all the *débris* behind. It is not necessary to cover the boxes into which the ants and eggs are placed; in fact, I think light is the incentive which causes the ants to carry the eggs away into whatever receptacle is provided.

I feed the cocoons and ants as they come to my birds. Some of the larger birds, Quails and Partridges, will take the full-blown insect as well as the cocoon.

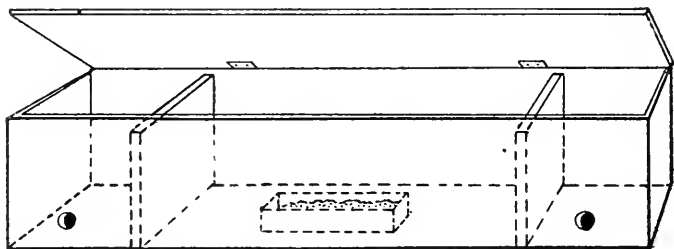
In feeding live-bait to a mixed collection it is inevitable that the larger birds should get more than their share of good things, and I have lately fitted up a very simple contrivance which equalises matters considerably, and which I have not seen elsewhere.

Most of my aviaries have feeding-boxes in the outer flights as well as the food-trays in the shelter. I have covered these boxes with 1-in. wire-netting and place some of the live food or other tit-bit therein, the result being that the smallest birds can feed in comfort unaggressed by their larger and stronger companions. The

idea is probably as old as the hills, but one or two bird-keepers to whom I have mentioned it had not heard or thought of it.

Mice for many years have robbed us of a goodly number of nests either by disturbing the sitting birds or by actually devouring the young birds. I have tried various methods of destruction—traps, poison, and virus—all more or less successfully, but with the constantly recurring experience that they reappeared. This season I can boast of having only seen one mouse, and that one was dead.

My method is to keep in each aviary a box of canary-seed which has been soaked in a saturated solution of strychnine and then dried. One seed is probably sufficient to kill a barn-door fowl, and there is an obvious risk of poisoning one's birds if one is not careful. I have been using this method for the past year, and have also given poisoned seed to three friends and know of no accident.



The secret of success depends on placing the poison in a box so constructed that birds cannot get into it and that mice are not likely to carry seed out. The above sketch depicts a box about 18 in. long, with a $\frac{1}{2}$ -in. hole at each end. There are two partitions inside the box reaching almost up to the lid, which is on top. The pan of poisoned seed is in the middle. Any mouse entering the box has to climb over the partition in order to get at the seed, does not trouble to climb back after taking a seed, and dies on the spot; in fact, I have often found them in the pan itself, so quick is the death.

I have found as many as twelve in one night, and a friend who used it in an empty aviary killed fourteen, most of which were in the saucer containing the seed.

I make it a rule never to open the box inside the aviary and to burn all dead mice.

As these notes appear to deal exclusively with my methods

of doing things, a short record of the goings on in my aviaries last year may not be out of place.

A pair of Peach-faced Love-birds laid some ten or twelve clutches of eggs, but the young were never fed beyond a couple of days. Finally the eggs were transferred to budgerigars, who hatched and reared their foster-children to the age of three weeks and then struck work. This occurred on two occasions and the young had to be hand-reared; five were fully reared and are now full-grown and healthy.

"Joey," a veteran cockatiel and an old friend of the Editor's, was mated to a young hen; several nests of eggs were laid. All the eggs were clear until last September, when one chick was hatched and reared to the age of ten days.

Five pairs of Zebra finches were given nest-boxes in early spring; they only reared fifteen young, although they had a large aviary, were not inbred, and were not interfered with in any way. At the present price of 12s. 6d. a pair I had hoped to earn my income-tax.

A pair of green cardinals bought from Mr. Allen Silver went to nest at once. I transferred the eggs to a pair of Orchard finches, who were a few days later in their nesting arrangements. These hatched and fully reared two cardinals; the third died at the age of a week, although well nourished. I suspect that he came from an egg which I had at the time almost thrown away thinking it must be malformed; it was more like a sausage than an oval, more than twice as long as it was broad.

Some of my readers may remember my breeding the Great tit and giving the parents semi-liberty by opening the aviary door for a few hours daily.

As Orchard finches appear to be a drug on the market, I put my breeding pair in the aviary I used for the Tits (only 9 ft. \times 4 ft.), and allowed them their freedom as soon as the young cardinals were hatched.

The cock Orchard finch, as is usual on these occasions, became very tame, and would meet me in a field at the back of my garden quite 80 yards away from the young birds.

I have also seen him sitting on a telephone-wire over the

crowded High Street of Eton singing his monotonous song, but no one but myself seemed to realise that he was an alien.

The liberty of the parents had, of course, to cease before the young Cardinals left their nest.

I intend to repeat my experiment this year.

A pair of Diamond doves reared three young from their nests, but only two of these reached maturity.

Finally, my pair of Malachite Sun-birds, from which I had hoped the impossible, very naturally disappointed me. They built a nest in a *Plumbago capensis* covering one end of my greenhouse, after which the cock chose to go out of colour.

The mixture of condensed milk, honey, etc., may turn out show-birds, but I do not think it is enough to get the birds into breeding condition. I tried supplementing the routine food with custard and fruit-juice twice a week, and occasionally a little meat-juice or "Virol," all of which the birds seemed to enjoy.

The last-named food, I feel sure, saved their lives on one occasion in November, 1915. When they had been improperly fed, and were so perished with cold and hunger that I was able to pick up the pair of little sufferers in one hand with never a flutter or movement on their part, they reminded me very forcibly of hibernating dormice. A little Virol and hot water, administered drop by drop with a fountain-pen filler, put them on their feet in no time, and the following day, after a good feed, they were as well as ever.

These honey-eating birds—by which I mean Sun-birds, Sugar-birds, and Humming-birds—appear to become somnolent when suffering from cold or want of food. Most of us know the story of Mr. Ezra's late-lamented Humming-bird, which looked absolutely dead on arrival, but which recovered with food and warmth to delight the heart of almost every bird-lover in England.

I have hopes of doing better this year in spite of the terrible winter we have had; indeed, how few of us would persist in bird-breeding if but buoyed up by this perennial resolution—to do better in the coming year, and what an example to the rest of the world. Are we aviculturists?

So far there is not much going on although I am writing at

Easter. Black-cheeked and pearl-faced Lovebirds and Zebra finches are incubating; the Green cardinals are building and a pair of Swainson's lorikeets have begun to lay; the Redrumps and Rosellas are inspecting nest-boxes just provided.

My old orange-headed ground thrush is just coming into song and has stopped trying to peck his hen in the next aviary—sure sign that he will shortly be feeding her through the wires, when he will have his usual reward; the door of the nuptial chamber will be opened and he will pop through. Joey, the old Cockatiel, will be given one more chance, but if the first clutch of eggs is clear, off he goes to his rightful owner.

My *pièce de résistance* for this year is a pair of Yucatan blue and black Jays—(if they breed, Mr. Editor, I shall expect a gold medal, for you had a pair and failed).^{*} At present they are still caged, and are waiting for the weather to improve before going out; the small aviary where the Blue Pie bred two years ago is spick and span, and I have provided a very artistic and attractive nesting place.

If anyone has already bred these birds will they *please* write to me at once. I don't think I could again survive the shock Lord Lilford gave me by breeding the Blue Pie and not publishing his notes within a reasonable time.

Apart from being very handsome birds, these Jays are extremely tame and amusing. I don't think, however, that my male bird quite realises his duties. The female, who is the tamer bird, usually gets the mealworm, carries it to the male, who promptly takes it, and as often as not forgets that his gaping spouse expects the morsel to be returned to her.

I am not an ornithologist, and I hesitate to interfere with the already complicated nomenclature of birds; but can anyone tell me why these birds are Jays? Would not Blue and Black Magpie be a much more suitable description of this species? They have not the long tail of a Magpie, it is true†; but apart from this their outline is practically identical, and they have no crest to speak of. Perhaps some reader who is a frequenter of the South Kensington Museum will kindly enlighten me.

* [The Editor still has a most beautiful and true pair, but they are in a cage.]

† [We quite agree. These birds look much more like magpies.—ED.]

Several years ago I determined to breed the Gold-fronted fruitsucker. I may as well admit that I have failed; but I nearly succeeded, as two little chicks in spirit will prove. One was two days old and the other, alas, fourteen days. The latter was already beginning to show the green in his plumage. I look at him occasionally, and mourn the hen, now dead, who on four different occasions did her best to satisfy me. She would have succeeded but for the ardour of her mate.

It was in 1910 that I took two of these Fruitsuckers from a dealer in exchange for a pair of Green cardinals I had bred (my first success in foreign birds). These Fruitsuckers were described as finger tame; they were, for the simple reason that their feathers were so matted with sugar and dirt that they could not fly an inch.

Shortly after their arrival I attacked them with a shaving brush, hot water, and soap. The resultant water would have been an improvement on the ink we get in these war times; but both birds very nearly died as the consequence of my ministrations. A couple of hours in a small cage near the fire and a little brandy in their sop improved matters considerably, and next day they had recovered. The male is still alive, and the hen lived with me for five years.

About the same time I bought for 20s. another specimen described as out of feather. She arrived safely and in fairly good condition, but was as bald as a vulture, which, as it turned out, was lucky for me; for in about a fortnight, as the quills came on the head and neck, I began to realise that she was not quite like my own birds, and soon after I recognised her as a female Jerdon's Fruitsucker. She lived happily with the other two for a time, but finally I parted with her, and she later appeared on the show bench, I believe as the property of Mr. Maxwell.

My original pair spent the summer out of doors, 1910, when the hen amused herself with bits of straw and hay, but did nothing really encouraging in the way of nest-building. In November I brought them in for the winter.

In April, 1911, the birds were again put out into a small aviary, 14 ft. \times 6 ft., having a brick shelter. The hen at once began to carry nesting material, but she seemed difficult to satisfy, both as

regards the quality of the material and the site of her nest. On June 1st I gave her an old blackbird's nest, which I fixed upon a privet bush. This she immediately appropriated, trying it as one does a new arm-chair: first she carefully inspected it from every quarter; then she sat in it, twisting round and round to find the most comfortable position. Four days later she had lined the nest with cocoanut fibre (this material was used each subsequent year, to the exclusion of all else).

On June 11th the hen was on the nest most of the day. On the 12th, the nest contained two eggs. The full clutch, they were small, considering the size of the bird, and of a pale stone colour, with reddish-brown spots at the thick end.

To quote from my notes:

June 13th: Hen very steady. Cock does not sit or feed hen.

June 18th: Cock very excited if hen comes off to feed and utters a new note, but does not attempt to sit himself.

June 25th: Very wet for three days. Not hatched.

June 26th: Half egg-shell found on food shelf inside shelter. Both birds very insistent for insects, and will not touch fruit or sop. Mealworms very thoroughly "chewed up," and the skins rejected. A few small gentles taken; fresh ants' eggs disregarded. Pouring with rain; temp. 50° F.

June 27th, a.m.: Hen on nest. Cock feeds her for the first time with mealworms and green caterpillars (cabbage butterfly). Later hen off nest, so I inspected nest by means of a looking-glass. One egg unhatched, and one young chick, naked and flesh-coloured. Hen returned to nest in my presence, and gave chick a poke with her bill before settling down. About dusk hen looking very mopey and is off nest. After a good search, chick found three yards away from nest. Looks well nourished. Small bruise on side of head. Age about 36 hours.

A day or two later both birds began again to eat fruit freely.

I will now curtail my notes, which are somewhat lengthy.

On July 16th both birds were again searching for some nesting material, which I had not supplied. So I gave them numerous spiders' webs, which they are said to use. These they

obviously did not want, so making the best of a bad job, two more eggs were laid in the old nest on July 20th and 21st. The hen sat as before, and again I found a half shell in the shelter on August 3rd. On this occasion both birds, but especially the hen, fed the only youngster hatched, and they used mealworms, gentles, small cockroaches, ants' eggs, and undiluted honey. The insects used were swallowed after much ado and then regurgitated, and their method of feeding was different to any that I have ever witnessed: it was suggestive of a baby and a feeding-bottle. The masticated insect, after having presumably been partly digested, was brought up and offered to the chick, who gaped lustily, but instead of being crammed in the usual way, the insect was repeatedly withdrawn from the chick's bill, from which I infer that he merely sucked the morsel and obtained from it what liquid nourishment he could. It is possible that the parents did not approve of the tough covering of the insects I supplied, and that in their wild state they are able to find some less pachydermatous insect than a mealworm or gentle; certain I am that the young bird in my presence never received the outer covering of any insect. On August 17th the chick was very restless, and possibly committed suicide by jumping out of the nest. I found him on the ground, and again a small bruise could be seen near the left ear. He was a fortnight old and well quilled, with the green colour quite evident on the back.

August 29th: Again two eggs, one of which disappeared before September 8th, when another chick was hatched, which only survived until the 17th. This last youngster showed no sign of violence—in fact the male, who I feel sure killed the first two, was twice found brooding the third chick, which the hen bathed and dried herself. This may have been the result of remorse, but I rather think it was due to the lateness of the season, and the fact that he was no longer anxious to send his hen to nest again. I can therefore bear him no ill-will, and must look upon the loss of the third chick as a piece of ill-luck and nothing more.

The summer of 1911 was exceptionally hot, and to this was due my partial success. The following year I moved to a new house and aviaries and nothing happened. In July, 1913, two more eggs were laid, which both proved to be clear, and thus ended another

season. The following year both birds were in rather poor feather in the spring, and could not fly well till late in the breeding season, and again nothing happened. During the winter of that year the old hen departed this life, in spite of careful nursing. Her tongue had protruded for some months—always a bad sign with this type of bird—and with her death ended my hopes of breeding a species which has seldom even attempted to build, and which I believe has never before produced eggs in this country.

In 1915 I introduced a very nice young hen, which I obtained from Mr. Frostick, to the old cock, but he was never much taken with her, and occasionally bullied her shamefully, though she did her best to line a nest during the summer. The following winter, however, she turned the tables on her late tormenter, and very nearly killed him the first day they were caged for the winter. This necessitated finding a temporary home elsewhere for her, which I was fortunate enough to be able to do.

In 1916 we had endless squabbles and no nesting, so I parted with the hen, and also another pair of Fruitsuckers which I had bought early in the year. The latter had, before coming into my possession, built a nest during the winter in an outdoor aviary, but did nothing after coming into my possession.

Thus ends the history of my attempt to breed what I still consider one of the most attractive of "soft-bills." Someone (possibly it will be myself) will doubtless succeed one day, but it will, I feel sure, not be until we get another hot summer like that of 1911. My advice for this season is to try King Penguins, or Arctic blue-throats.

I have by dint of great self-control re-read these notes, and have come to the conclusion that the title of my article is by far the most brilliant feature of a very lengthy and tiresome rigmarole.*

* [We are grateful to Dr. Amsler for a most interesting and instructive article.
—Ed.]

BIRDS IN LONDON AND SUBURBIA.

By ALLEN SILVER.

In more remote times, before the Metropolis had spread out its octopus-like arms and had included so many places that were quite within recent times more or less villages on its outskirts, the area just outside London proper must have been a very good bird district, at any rate in as far as perching birds were concerned, and we know well from our elderly aviculturist friends whose lives have been spent near its precincts that many species were regular breeders.

Necessary alteration of conditions and town planning have, of course, made permanent quarters impossible; but even now an observant person can see that they are not driven so far from their old lines of flight, except where factories and chimney-pots are so numerous as to cause them to "scurry" by until a convenient halting spot or garden presents itself. In one or two old-world spots even to-day surprises occur, but here I propose to deal with incidents that have occurred to my knowledge during the last ten years. One must, of course, eliminate such species as the House Sparrow, Starling, Redbreast, Chaffinch, Greenfinch, Wood Pigeon, Blackbird, Thrush, Rook, and Hedge Accentor, which present themselves on all possible occasions in inner suburbia, and, of course, exclude places like Wimbledon Common, where the Nightingale comes regularly and the Lesser redpoll breeds, or places like Highgate Woods, but rather keep to those places where bustle is not infrequent and where tram-cars and motor-buses and a fairly thick population may be common features, and yet where a few old houses with large gardens still exist, and perhaps a decent open space or two. It would not be fair to include outlying places on the District or Bakerloo Railways, where so many open spots still abound, but confine oneself well within the suburban mark proper, eliminating all spots down the river below Richmond or Isleworth. One need not mention Black-headed gulls, which are as frequent in winter on Clapham and Wandsworth Commons near water as to be outside the scope, or Mallard or Water-hens, which thrive on municipal waters, but confine oneself rather to small and less conspicuous species. I am not going to

tabulate a list of species or supply dates, because I am unfortunately so placed that I am well away from any notes of reference ; but as they occur to mind I will mention birds that have mostly been first discovered by ear in the course of my daily business walks in the suburbs, or before breakfast, or at night in my garden, or in the course of an evening stroll.

The Cuckoo on commons as a passing migrant has occurred almost every spring, and the Kingfisher rarely as an autumn quick passage migrant on ponds, ornamental lakes, or streams. The Swift, of course, is quite common, and in one place where a filthy paint mill lies next a little stream in a thickly populated district where train lines rush tearing by day and night, large flocks of these weird birds can be watched at close quarters dashing almost in one's face when watched from a foot bridge near by. Tawny Owls are much more common in certain parts of suburbia than one imagines, and I have watched their gradually pushing out further afield. In an old place on the edge of Tooting Bec Common a number of these birds were most conspicuous o' nights. I have seen them also in an asylum garden at Peckham on a late winter afternoon, and over and in my own garden at Forest Hill, which is only twenty minutes by train from London Bridge Station. On Tooting Bec Common at night I have seen a Barn and a Long-eared Owl, and a Long-eared Owl in a copse near my own home. A Barn Owl once fluttered round the bandstand one night at the White City, and a Nightjar almost hit me in the face there the next season. A bird of this species caused me nearly to be knocked down one early summer's evening in Tooting High Road, and a friend of mine who rode a bicycle said he also saw the bird hawking moths in front of his light. Herons frequently pass over, and one is almost by instinct compelled to look up when a heron is passing. These, except in the case of passing migrants, are often young birds from Richmond Park, and for years I have passed a spot near Mortlake at the same time as a heron or herons came over and alighted on the mud on the opposite bank. Barnes Common always has its two pairs or more of Carrion crows, a bird which I have seen in pairs, breeding or otherwise, in several suburban spots and near my own garden. Jackdaws come over with the rooks, and a large colony breeds still not so many minutes from London Bridge

Station, although in a district I consider slightly outside the pale. It is only a few years ago that jays visited regularly the gardens of the Firs in the vicinity of Clapham Park. I have never seen a *wild* magpie (as apart from an escape) in London. Kestrels, especially in the southern suburbia, I have noticed on a number of occasions twirling and shimmering golden brown in the autumn sunlight, mostly young birds on passage. The Missel thrush is not over common, although I have met with it frequently on Clapham and Tooting Bec and Peckham Rye Commons and in my own garden, but it seems to disperse quickly after breeding, or altogether in some districts before so doing. Redwings come in the hawthorn berry season, and can be heard passing over at night often during their proper season. I have seen fieldfares high up, but not perched or frequenting any suburban garden. The skylark appears here and there, and on all suitable spots sings and occasionally breeds close in. This bird I have seen gradually driven in the south out to Mitcham by the bricklayer, although it still hangs closely in at Southfields and in the Garratt Lane district.

In winter the Meadow pipit occurs frequently, and I can always find one or two to order and probably in company with a Grey wagtail. I once saw two breeding cocks (Meadow pipits) in full song on some waste land surrounded more or less by a small-house residential area, and they remained on, and I could only conclude the hens were sitting. The Tree pipit occurs occasionally near a railway cutting in its season. Curiously enough, a Richards pipit was offered for sale to me—unfortunately just dead—that had been caught in some bird-nets in a field quite close in. The man who first bought it treated it like a Skylark and lost it, for which I was sorry, because it was a species I much wanted to keep alive. Meadow, Tree, and Rock pipits I have found hardy and excellent cage-birds, always neat and lively and long-lived. Pied wagtails are not uncommon, but Greys in winter crop up in the most unexpected spots provided there's an old ditch or a little water.* Willow-wrens breed on many of the commons and regularly pass through the gardens in the autumn, often trying hard to get in the

* I once saw a passage flock of old and immature Yellow wagtails on Barnes Common.

aviary and fight the birds, and Chiff-chaffs come with them, although early in the year they can occasionally be seen calling from tall tree-tops on commons. I have not seen or heard a Wood-wren nearer than Wimbledon Common. The common wren is not rare, and can be seen and heard in many suitable spots. Last year a large brood successfully were reared in my own garden. The Gold-crest comes through the suburbs and visits most gardens with small shrubberies. It has often passed through my own, and I have often heard it when I have not seen it in yews, etc., in churchyards and cemeteries where conifers abound. I have seen Tree-creepers in odd spots and in my own garden, but not a nuthatch nearer than Mitcham district. No woodpeckers have I seen nearer than Wimbledon, although the lesser spotted breed was seen by a friend of mine in his grounds in my district about two years ago. His father owned a spacious place, of course. Greater and Blue tits are not rare and breed, but Marsh and Cole tits I have only observed as passing birds, and have in winter along the railway line seen at regular hours flocks of Long-tailed tits in South London. The Greater and Lesser whitethroat visit most gardens where there is fruit, and both species "hung round" my raspberries and currants and soft pears this and last season. Both species I have seen well in breeding along railway cuttings. The Blackcap warbler passes through quickly in the spring, and usually comes back through the outlying gardens when the small fruit crops are on. In 1915 and 1916 a pair evidently nested near a copse beside the line about 200 yards from my garden and twenty minutes from London Bridge Station. I heard a cock singing both years throughout the season of song, and in 1916 the bird would dash across to my garden and compete with my old Pekin robin in a musical tournament. He ate most of the riper raspberries in 1916 and occasionally perched on the aviary wire. I tried to catch him, but had no time to "rig up" a water-trap. Blackcaps usually ignore mealworms and fruit as a bait, but will drink from a small, inconspicuous vessel rather than search for water. Concerning small thrushes (eliminating the Redbreast, which follows one like a dog and perches on one's heel or spade or seed or food pan, and is a general nuisance to guard against when entering a flight or small greenhouse, where it may do

some considerable damage), the only occasions upon which I have met with nightingales close in have been a case of a very wild passing bird in April on the shady side of a common, and an instance in which some few years ago (three) a friend of mine (an old insectivorous bird-keeper who lived in a suburb with small gardens running down to the line) caught two. Much to his surprise he heard a migrant nightingale's notes, and in a half-hearted way set an old nightingale-trap under the hedge, and in due course caught both. One turned out an excellent songster next season. This, of course, was an accident, but in former years the spot may have been good ground for the species. I have seen autumn Common redstart and also a Black redstart within the Sydenham district. In fact, a male in winter plumage in 1915 could be seen in a certain spot for weeks, and was known not only to myself, but to a fellow bird-keeper who discovered it apart from myself. Two bird-catchers tried to catch it, but one made it trap-shy,* and it moved on in due course. The Spotted flycatcher I have noticed in May, and an old garden wall only recently pulled down was evidently a site for the breeding pair, for later in that season I saw the young being fed by parents there. I have never seen a passing Pied flycatcher myself, but I saw alive and doing well two immature birds that some years ago were caught with a mealworm by a youth not far from Vincent Square, Westminster. They were noticed at once by him, his father being a bird-keeper, and he had no difficulty in attracting their attention to the line.

Swallows, House martins, and Sand martins occur regularly as passing migrants, and especially in autumn will feed over the ponds, lakes, and streams in the suburbs. The former species, however, seems to go out well as a breeder as does the latter, but the House martin, like the swift, clings occasionally to eaves fairly well in. These sites, however, are fast disappearing. Just a little way out I have seen a passing Red-backed shrike alight on railway wires. Turtle doves have made a quickly moving passage over commons with trees to my knowledge, but I have never seen them

* Two other instances of this under review have also occurred.

permanently settled nearer than Mitcham. I have seen the whinchat feeding young at Finchley within' quite recent times, and the stonechat, both sexes and young, alongside tram lines and where plenty of people go and pass. Wheatears as passage birds I have heard pass over the same ground, but I have not seen them. With regard to Finches, I have seen Goldfinches, single birds and flocks of birds, on the move and settled near where tram lines, motor 'buses, factories, and a squalid, thickly-populated neighbourhood existed, and they were not only noticed by myself, but by old fanciers who lived in these parts.

Linnets pass over quickly but not rarely, and redpolls, singly and with young, come into the trees in season on a common I know, and in winter I could always fetch one down in my garden, and have heard breeding males singing over the garden. I noticed a hen goldfinch in the spring of 1916 on my aviary, which dropped to the singing of my own birds. The song of the chaffinch and greenfinch in the breeding season is not rare in the old suburbs and outer suburbs, but I have never heard of hawfinches nearer than Epping. Bullfinches I have seen in South London coming up the railway cuttings in winter and migrant birds passing over high up after an evening feed somewhere near. During snow I have known of bramblings on Clapham Common. At night I have heard Green and Golden plover pass over high up, and also Curlew and other invaders whose cries were unfamiliar to me. Geese have evidently in mid-winter been also flying high up above the flocks, because their cry intermingled at times. Whilst walking through South-East and South-West London, when the flying ants are about, both starlings and sparrows are made more conspicuous by reason of their continuous pursuit of them.

This, roughly, constitutes an account of species that have (as before pointed out) come under notice during the last ten years, and which have in most instances been discovered by ear. Their presence has not been made obvious in the course of leisurely strolls, but during the course of quickly conducted business journeys on foot or 'bus or occasionally in the course of a morning or night walk. It serves to an extent to show how birds are gradually pushed out by alterations. In these ten years I have seen immense estates

grow up, now thickly populated (many of the houses containing six to eight-year children), where nine to ten years ago I could hear the lark singing or see it feeding its young, and could always in winter find a Meadow pipit or Grey wagtail.

SOME TASMANIAN BIRDS' NESTS.*

By H. STUART DOVE, R.A.O.U., West Devonport (Tas.).

(Continued from p. 203).

While pushing through the belt of thick tea-tree (*Leptospermum*) which adorns much of the banks of a large creek in the Launceston district, excluding the sunlight and keeping the ground almost devoid of undergrowth, we noticed one of those fine Honey-eaters formerly called the "New Holland," but now the White-bearded (*Meliornis novæ-hollandiæ*), upon her nest, about 8 ft. from the ground, in a fork of the scrub. She hopped to a twig which projected at an angle from the nest, and stayed there, without a note or a movement, for about twelve minutes, until cameras had been erected and pictures taken. As soon as one of the party went close, the female bird left and the male appeared, dashing about and uttering angry cries. The nest was roughly cup-shaped, composed of small twigs and wool, and lined with the soft downy seed-pods of the "cotton-bush" (*Pimelea nivea*, Lab.), which grows plentifully hereabouts and is commonly used by this Honey-eater. The nest contained two good-sized young birds and an infertile egg. It is interesting to note that this lively and handsome species is partial to a similar nest-lining on the mainland of Australia, for an observer records a case at Upper Werribee, Victoria, where the lining was entirely of soft, yellowish-white seed-casings derived from a particular shrub there.

Towards the end of September I discovered the nest of a Brown Scrub-Wren (*Sericornis humilis*) within a few yards of a public road daily traversed by carts, cyclists, pedestrians, and occasionally by motor-cars. The nest was within 50 yards of the sea, placed in a tangle of the prickly-leaved (*Stellaria pungens*, Brön.), and bracken fern, and was shaded by a small varnish wattle (*Acacia*

* From the 'Emu' (with acknowledgments to the Editor).

verniciflua, Cunn.). It was composed of grasses and portions of dry fern, and lined with feathers; placed at a height of $2\frac{1}{2}$ ft. from the ground, and so well concealed in the tangle that only the entrance was visible when one stooped to peer into the thicket. Had the bird not flown as I made a thrust with my stick among the ferns, her secret would probably have remained undiscovered. In the afternoon of the same day I paid another visit, and was rewarded by finding the female upon the nest, where she remained and gazed quietly at me.

To quote a few instances of birds that select the ground for their nurseries, or get so close thereto that they may be considered as ground-builders, I will describe a ramble along the side of a white gum-tree hill in Northern Tasmania. Here, under shelter of the fine, straight, young trees, and amid the profusion of *Lepidosperma* tussocks with which the long slope is covered, numbers of beautiful Yellow-throated Honey-eaters (*Ptilotis flavigularis*) were occupied with domestic cares. The first nursery was easily seen, no attempt having been made at concealment; it was situated only a foot from the soil, in a small *Lepidosperma* tussock, and was cup-shaped, deep, formed of strips of gum bark and grass, and lined with about equal parts of cowhair and wool. The dimensions were: 5 in. across the top over all, $2\frac{1}{4}$ in. across inside, and about the same inside depth. Two eggs reposed on the warm lining, one being *white*, the other of the usual pinkish hue, with many red spots at the apex, sparsely spotted over remainder of shell.

Another nest was placed in a larger tussock, and was fairly well hidden under loose strips of fallen gum-tree bark. It was constructed of grass, with some of the *Lepidosperma* blades passing diagonally through the sides and woven in; spider cocoons were also woven into the exterior, and the nest was situated close to a large, strong web, having a vertical shaft in which the obese arachnid lay hid. The cup-shaped nest was very deep, so much so that the female Honey-eater was almost concealed as she sat, only her head and pretty primrose throat showing at one side and her tail at the other, the body being packed well down, giving the impression of great depth and warmth. She sat without a movement while we watched, and a few days before, when visited by Mr. H. C. Thompson

had had the lens of a camera within a yard without betraying any fear, still cleaving to the eggs, which reposed on cowhair and a little wool.

A third nest was found in a similar situation, and contained three eggs just chipping on October 28th, and on November 2nd there were three young with eyes closed, the bodies partly covered with a blackish down. The eggs of this fine bird measure about $\cdot 9 \times \cdot 7$ in. The Striated Field-Wren (*Calamanthus fuliginosus*) sings sweetly his wild little ditty from the top of a tall tussock, stem of tea-tree, or fence-post, all through the cold, often wet, months of winter and spring. He loves the swampy plains near the beach, where abound the great "saggs" or tussocks amid which he passes a large part of his existence. Our species was formerly considered identical with that of similar habitat on the mainland of Australia, but was separated by Mr. G. M. Mathews in his "Hand-list" of 1908, the Tasmanian form retaining the name of "*fuliginosus*" or "sooty," while the Victorian is distinguished as "*albiloris*."

By making my way through the swamps I have discovered a number of *Calamanthus* nests, several not being new, but well preserved, owing to their being packed away in snug positions. It has been stated that this songster builds *under* the overhanging tussocks and in the midst of small bushes; it may do so in some parts of the country, but in this district my experience has been that the domiciles are packed away right down *in* the tussocks, and usually towards the south-east side of the bunch of drooping blades, so as to be sheltered from the prevailing north-west winds, which sweep at times with much severity across Bass Strait. The structure is large and domed, with side entrance, made principally of dry grass mixed with a quantity of green moss, the sides thick and massive, so as to render it warm and cosy inside, this effect being considerably enhanced by the plentiful lining of feathers with which it is provided. A quantity of vegetable matter, such as portions of dry tussock-blades, is first put down into the clump where the blades converge towards the base, and this forms a foundation to keep the superstructure in position. In one of those found, an old nest seemed to form the base for the new one, to raise it well up from the wet, marshy plain. In many cases the top front of the nest appears to

overhang and form a sort of eave to cast off rain or hail and keep all within dry and snug. In some cases, however, the lower lip of the entrance projects and the upper recedes, so that one can look down into the egg-chamber; in these instances the structure appears midway between a covered and an open nest.

The Spotted Diamond-Bird (*Pardalotus punctatus*), or, in ordinary parlance, the "Ground Diamond," may well be termed an *underground* builder, for it burrows horizontally or in a very slightly upward direction into the solid ground, and at the termination of this burrow excavates an incubation chamber in which to rear its brood. During the month of November Mr. H. C. Thompson and myself explored the recesses of one of these miniature tunnels made in the side of a hollow from which a gum-tree stump had been removed, the soil being a fine white grit. The hole which marked the entrance was about 6 in. below the general ground level, and the tunnel went back about 12 in.—no light contract for a pair of tiny birds measuring each very little more than $3\frac{1}{2}$ in. total length, to excavate so far in hard grit, with no tools but those of Nature's providing. At the end the burrow was enlarged to form a chamber, in which was placed the spherical nest with small side entrance, formed of fine strips of inner gum bark intermixed with a few very fine rootlets. In this soft cradle reposed no fewer than *five* pure white eggs (the usual clutch is four) of a somewhat rounded shape, heavily incubated; we replaced them, and covered in the chamber as we had found it. The male bird had left the burrow as we approached, showing that he takes *some part*, at any rate, in the incubation.

(*To be continued.*)

BIRDS OF QUEENSLAND.*

We all know of the Cuckoo in the Old Country, writes a Queensland correspondent, and even those of us who have not been there have read of that bird's lazy habits as regards nest-building—how it takes advantage of another's industry. But how many of us know that we have a bird with us here which has similar habits?

* From the London correspondent of the N. Queensland Register.

The Coo-ee Bird we call him, though his correct name is Koel, and that he belongs to the Cuckoo family. He is a black bird and his wife dresses quietly in grey. These birds go away for part of the year, but just now round outside Brisbane the male bird is persistent in his cry. "Coo-ea!" he seems to call, and his wife answers "Quick! quick! quick!" It is nesting-time, but it is not that they are in a hurry to build. They do not find pieces of twigs and leaves, and soft feathers to line little warm nests—not they! The male bird also calls "Warra, warra, warra," and one often hears this cry through the night.

As I write there is a picture before me and the sound of a multitude of bird voices. Dozens of those quaint-looking and quaint-voiced birds, the Leather-heads, are rioting amidst the yellow bloom on a tall, silky oak tree. The golden glow on the tree is beautiful against the sky, but one hardly knows how lovely these silky oak flowers are until one gathers a spray and looks into the heart of it. As the flowers mature, little spikes of yellow are released and stand up, tipped with the palest of green, tiny nob. At the base of these spikes there are stripes of red, and here in the wee cups is the honey. One has only to put one's finger on the moisture and taste it to realise what a harvest the birds reap with their wondrous busy tongues—a harvest of honey. No wonder there are birds galore, for all the thousands of little cups are filled. Birds of all sorts which love honey collect there, and they know that their lives are protected in these grounds, no boy, big or little, being allowed to hurt or frighten them.

QUEENSLAND GROWS CANARY SEED.

Experimental sowings of canary seed are being made in many parts of Queensland, as the war has brought about a prospect of high prices for some years after peace is declared. No Turkish canary seed is to hand in Australia nowadays. The Australian market is supplied by Morocco and the Argentine, and the landing cost is £27 to £28 a ton. Added to this are the duty and other expenses, totalling £3 a ton. There is also the cost of cleaning and

of putting in smaller packages. Hence the Queensland price for this article is 34s. to 36s. per cwt., or nearly double the normal value that was current here before the war.

CORRESPONDENCE.

BIRD LIFE ON THE BATTLEFIELDS.

To the Editor of the Avicultural Magazine.

It may interest you to hear that last week I walked over part of the ground of the battlefield of the past few days, and was staggered to see quite a number of partridges running about between the shell craters (I must have seen at least thirty or forty within a few hours), larks singing, magpies all over the place, and a hare lopping along as if nothing were happening, with big guns roaring all round and from every side! One would have expected that the intense bombardment and the tens of thousands of troops who had fought over the ground only a few hours before would have driven away every form of animal life: the birds, of course, could fly back again if disturbed, but how did the hare get there? I also saw the first swallow flying over a pond near the battlefield on the 13th of April. What awful weather we are having, but our men are doing splendidly in spite of it. With kind regards.

Yours very sincerely,

ALBERT PAM.

c/o A.D.In. H.Q. 3rd Army B.E.F.

DEAR SIR,—Mr. Trevor-Battye's article on Water Rails must have given great pleasure to many readers.

May I, at the risk of being deemed tiresome, again refer to my old question as to why some members of the Society do not get a pair or two of Water Rails and turn them down in a suitable enclosure for nesting? Much of intense interest could then be learned, both as to the calling and also as to the nesting habits of the bird. The experiment would only necessitate a little energetic and combined action by a few members interested in such birds, and I feel sure it would succeed sooner or later. Nearly allied Rails do well and breed in captivity, and my experience of Water Rails (and I have had several) is that they are quite easy to keep and very adaptable.

It is interesting to note that in Iceland the Water Rail is known as Keldu-Svin (Swamp-Swine) from its cry. I have been informed by an Icelandic farmer that it creeps into outhouses about the farms in winter. How it gets food is a mystery.

In suggesting that efforts should be made to get Water Rails to breed in captivity I am not writing selfishly. My own birds of many kinds have almost all gone since the war commenced, including one Blue Bird, which has flown to

Flanders, never to return. This is no reason, however, why other members of the Society should not pursue a matter which I venture to think would be a great interest not only to them, but also as an extension of knowledge for future generations.

Yours faithfully,

C. BARNBY SMITH.

"Woodlands," Retford, May 8th, 1917.

CONTRAFEITOS.

SIR,—In the current 'Avicultural' Dr. Hopkinson asks if the yellow coloration often seen in Amazons is due to faking by rubbing some juice into the body of the bird. In Brazil the making of these "contrafeitos" is a regular business, so it is not surprising that one sees, even over here, so many "home-made" lutinos. The feathers are plucked out over a selected area, and the cutaneous secretion of a small frog is rubbed into the denuded space; or the frog itself may be used in the same way. *Dendrobates tinctorius* is the species employed: it is a pretty little creature, about the size of the European tree-frog, and is widely distributed in South America, from Panama to Ecuador. The cutaneous glands are but small, but their secretion is very poisonous, and is probably allied to the toxin which has been isolated from similar glands in the spotted salamander (*Salamandra maculosa*).

Yours, etc.,

GRAHAM RENSCHAW.

SUPPOSED FALCATED DUCKS BRED AT KEW.

DEAR SIR,—Yesterday (May 14th) I had an opportunity of observing a pair of the supposed Falcated Ducks bred last year at Kew (see the January 'Avicultural Magazine,' p. 96), and found that they were Falcated-Gadwall hybrids, as I expected, having last year seen a Falcated drake in company with a Gadwall female on the lake, and no female Falcated in evidence, at breeding-time.

At the same time, I must admit that the Falcated species is very dominant in the colour of the hybrid drake, which, however, has no buff on the lower tail-coverts, and has the throat buff instead of white, this colour extending over the cheeks nearly up to the eyes, and passing narrowly up along the base of the bill to end in a spot on the forehead. In structural characters, however, the Falcated is recessive, the hybrid having neither crests, elongated wing-feathers, nor long tail-coverts developed to any noticeable extent.

The female shows the Gadwall blood in having the underside of the bill orange, which colour extends indistinctly over the sides of the beak also; her speculum is also only smoky, not so intensely black as it should be, and she has not the slight development of crest that even a female Falcated shows.

The male's note is a whistle, much like the Falcated drake's, and not at all like the strong coarse quack of the Gadwall drake.

F. FINN.

[Note.—In writing birds' names, if they occur in a list, capitals can be used—*e. g.* the Great Titmouse; but it seems advisable not to make use of capitals otherwise—*e. g.* "By a stream I observed a pair of grey wagtails."—ED.]



SKYLARK FEEDING YOUNG.

Photo. by J. H. Symonds.

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THE NEST OF A CHAFFINCH.

(A Tale of Romance and Resource.)

By ALEXANDER GOODALL.

The Auld Kirk Manse, or The Manse, as it is usually called, is a long rambling, two-storied building situated at the top of one of the many feeders of our exceedingly busy main street. Surrounded by tall trees, in which there is occasionally a colony of rooks, and ornamented by shrubs and evergreens, it has the appearance, and I know it possesses, all the peaceful felicity and calm serenity generally attributed to the rural minister's residence, although standing almost in the heart of a manufacturing town. There is one green sward suitable for such like pastimes as bowls, croquet, etc., and another which is put to more utilitarian purposes, besides a large garden, where many of the various fruits and vegetables necessary for the comfort and the well-being of the inner man are grown. Nor must I forget the reverend doctor's bees (his only hobby), nor his good lady's hens, both of which colonies, by their products, help to sweeten the life and fill with vigour the numerous members of The Manse household. I could relate many incidents connected with the history of The Manse, but am afraid they would be rather out of place in this article. There are meetings—rejoicings—partings—weepings—marrying and giving in marriage; for the couples are many who come to The Manse to be bound together in the bonds of matrimony. And it is in connection with the latter that I have

been constrained to mention The Manse at all. It was after one of these rejoicings, when a loving couple had taken each other "for richer, for poorer, for better, for worse," that the following charming incident occurred. After receiving the blessing of the worthy pastor, they were further gladdened by a glorious send-off at The Manse gate, from which they took their departure in a smothering shower of confetti. A pair of chaffinches which had been sitting in one of the trees near by, introducing themselves to one another, were amazed at the manner in which human beings could conduct themselves after a wedding, and, until the cab had driven off, and the newly-wedded ones were far away from the scene, they sat perfectly speechless to see men and women—who were supposed to belong to the higher grades of the animal kingdom—carrying on in such a way as to proclaim to all right-thinking birds, that they had taken leave of their senses for the time being. The hen was the first to regain her composure (a faculty, by the way, not altogether unpeculiar to the female sex), and she said; Pink! pink! pink! pink! By the tone of her voice one could easily interpret it to mean, "These folks are mad!" But the cock, who had spent a year or two in The Manse grounds, and knew all about it, corrected her, and said: Pink! pink! Tra la la la, Hu hu hu hu, He he he he, hooie," which, being freely translated, means, "No! no! no! no! Not at all, dear! That's just how they wish them joy!" It were needless for me to enter into the many conversations they had together for long, long after the bride and bridegroom had departed. Suffice it to say, that after a great deal of persuasion, much cajolery and flattery, not to speak of a continual and liberal display of his beautiful new spring suit, he overcame the lady's coquetry, and obtained her consent to do as the humans had done, without any of the fuss and noise with which they had accompanied their ceremony. They were married—without the consent of the reverend doctor, I must say—but they built their house, and lived and reared their family within the sacred precincts of The Manse grounds. The building of their house was a great affair, for it was a unique bit of architecture. It was started in the orthodox way, with small twigs and grass interwoven and interlaced, and the inside was beautifully lined with feathers. But the outside, which is generally formed of lichen or moss, pre-



COCK BLACKBIRD.

Photo. by J. H. Symonds.

Adlard & Son & West Newman, Ltd.

sented a wonderful aspect. Whether moss or lichen was not procurable I cannot say, but, knowing that the outside was incomplete without a decoration of some kind wherewith to adorn or make it less conspicuous, the worthy couple laid their heads together, and after a long and serious confab resolved to again follow the example of the humans and utilise the confetti which had been thrown at them for good luck, and see whether there was any truth in the popular superstition. Accordingly they hied them to The Manse gate, and carefully collected as much of the confetti as was still to the fore, and decorated the outside walls of their prospective residence in the most skilful manner imaginable, after which he gallantly led her to her bridal home, where they proved that the so-called superstition must have been no superstition at all, for it brought them much happiness and a wedded life in which there were no family jars, and any troubles they did have were exceedingly "little ones"; but it served to make the nest more, instead of less, conspicuous, and this ultimately led to its discovery.

I shall be pleased to show the nest to any of my fellow-members; but it is rather a far cry from the editorial chair of the 'Avicultural Magazine' to the kingdom o' Fife.*

ON TAMING PARROTS.

By ROSIE ALDERSON.

I.

He who wrote "a small thing, but mine own," sounded a very true note in human nature, for is it not often the case that we prize a bird just because its love seems specially to centre on ourselves, and parrots and parrakeets seem particularly capable of giving affection to their owner and often to no one else.

There is something very delightful in gaining the loving confidence of a timid or savage bird so that it ends by looking upon you as its greatest friend, and it is my firm belief that it is possible to accomplish this with *every* wild creature, whether animal or bird.

* [Mr. Goodall promised a photograph of the nest, but it did not arrive.—ED.]

How, then, should we start with a parrot that comes straight from a dealer's and may be savage or timid, or possibly both combined?

First, let us consider the point from the parrot's side. Even with merciful treatment it has suffered greatly. It has been deprived of its freedom to come and go, to fly or settle at will, and when one thinks of the joy it must be to a bird to fly where it lists, in the pure air and sunshine, to light on a swinging bough, and to exchange this for a small barred cage—possibly with other captives—and a hard straight perch, it is no wonder if many birds physically suffer from strain and heart-break, and get out of health from inaction after a life of liberty. Then, again, there is the terrible shock to the bird's system in *being caught*, the unknown dread of what it all means, the terrified helplessness. In highly-strung birds one would almost wonder if they were ever quite the same again, for birds have "hearts" like human beings. I once had a little whydah that used to faint in my hand if it was ever necessary to catch it.

Another strain on a parrot is the change of climate, and this change is made worse by the bird not being able to move about in its cage sufficiently to keep its circulation properly going. Added to this is the change of food, the lack of *fresh* food, and the infinite variety of it, in the bird's free life, the healthy appetite gained from having to *search* for that food: all this exchanged for an artificial diet, which being always before the bird must take away much of its desire for it.

There is just one point more: if you look at a parrot's feet you may sometimes notice they are more or less imperfect. A nail may be gone, perhaps a toe, in some very bad cases several. What does it mean? Simply a record of a man's cruelty when he trapped the bird, for black people know no pity with live creatures. Can we wonder at any parrot's hatred or terror of the whole human race? Many a parrot put down as bad tempered is simply nerve-racked when any human being makes advances towards it. It is a repetition of the case of the poor little terror-stricken dauphin in his cry to Marie Antoinette, "Mamma, is it yesterday over again?"

How, then, shall we treat our parrot to make it forget the past? It goes without saying that the cage must be all ready before-

hand—sanded, with fresh food and water, and one or two tit-bits, apple or biscuit, put on the seed. The parrot will probably arrive in a wooden box. To transfer it just loosen the lid, turn the box gently on its side, and slide the lid off while holding the box to the open cage door. If it is a sliding door to the cage tie it up with string first. Let the bird come out quietly, it will not keep you waiting long.

When the parrot is inside the cage do not trouble it with too much attention all at once. It is tired and strange, and to have many people round it makes a bad start. Just speak to the bird a little yourself, put it where it can be quiet and yet see to eat and drink, and cover its cage over at night, for your room or aviary will not be as warm as a dealer's shop.

Next day you may begin the work of taming. Four things are needed on your part—gentleness, patience, and perseverance, and the sense to “go slow”; affection is a thing that cannot be hurried. One more point: if possible wear the same dress when attending to your birds, or what can the parrot think but that you have *changed your plumage*, a fact that in the bird-world might well arouse grave suspicion. Most of us have an old “aviary coat”; it is as well to keep such a garment, not only for the bird's sake, but on the score of cleanliness. Birds notice more than we imagine. I once had a pair of partridges that only loved their former owner when he wore a certain blue jacket.

For the first day or two after your parrot's arrival don't worry him with too much clearing out of his cage or trying to *force* him to be tame, just talk to him when you go near the cage and put a bit of biscuit between the wires. My own parrots were especially fond of a square biscuit (flavoured with vanilla) named “Nice,” and made, I think, by Huntley and Palmer. When the bird has found out how good the biscuit is, cease to put it between the wires and offer it *at the same place* held in your fingers. If the bird will not come, take the biscuit away, and try again a little later. Be sure and give up the biscuit the moment the bird seizes it, for it will be an effort on his part, just as it is a trial of patience on yours. After the parrot has learnt to take biscuit freely from your fingers he must start to learn to come out of his cage. Be sure your door

and window is shut, and that there is a guard over the fireplace; then open the cage door wide, and put one arm *across the opening*, not above the bottom of the door. Hold the piece of biscuit on the other side of your arm in the other hand so that the bird *must* come on your arm if he wants to take the food. Talk to the parrot and encourage him, and call him by his name, so that it may be the first sound that strikes his notice when he knows he is being offered something nice to eat. You must hold your arm very still and may have to keep it out for some time. Your sleeve, not your bare wrist, should be in front of the opening, and when the parrot comes on to it move your arm very gently from the cage, and of course give the bird the biscuit. If he will not come take the biscuit away. From the first the parrot must understand that if you are his friend you are also his master. By the same rule, if a parrot tries to bite you, don't leave the cage at once, letting him think he has won a complete victory, stay for a little, and show him you are not afraid of him, but are determined to do what you intended to do; a bird respects an owner that it knows is master of it. Most parrot bites come from nervousness and the instinct of self-defence, not from real viciousness, and so should not be condemned too harshly.

When the parrot will come out readily, and will almost *ask* you to let him out, you have nearly won him. He has yet to learn the greatest test of a tame parrot—to allow you to stroke him down the back without flinching. Most parrots have an intense fear of this, so be sure and begin your “stroke” by starting round the sides of the bird's neck and face, then very gradually as you feel the bird will bear it, teach it to trust your hand behind it, but remember your teaching must be *gradual*, for you cannot remove fear or establish love by force *and alone*, the effort must come from the bird's side as well as yours. Don't give all the affection yourself, let the bird give you some of his. Love is such a delicately adjusted scale, if one side begins to love too much, the other will assuredly start to love too little. A healthy sense of proportion on each side makes a “just balance.” Among all the tame parrots I have kept I have never found two with characters quite alike. In this respect they are like dogs. At the present time I have only two, both blue-fronted Amazons. “Rollo” the older bird is very fine,

rich and clear in colour, but he has one toe missing. He used to live in the house and was soon very tame. His delight was to sit on my shoulder whilst I wrote my letters and amuse himself by abstracting my hairpins. I used to hear them dropping behind me one by one as I wrote. "Rollo" had also a naughty habit of biting my linen collar, a proceeding that gave him much interest; he was very fond of giving me little friendly rubs and pecks in the neck, or biting my ear very gently. He is a bird that continually talks to himself with a mixture of curious little noises and words.

Every night "Rollo's" cage was carried up and put on a stool on the staircase landing, so as to allow the maid to open the room windows well in the morning. If you do not take this precaution with a parrot it will probably take cold and die, for the maid may never think of the bird getting chilled, and the early morning air is so cold in a room.

My little fox-terrier had always been jealous of "Rollo," and one day an accident happened. His cage got upset and the bird was frightened. Soon after this a little blister appeared on one eye, and the sight on that side entirely went, though the eye itself looks almost normal. But the worst of it was the bird's whole character began to change. I had put him loose in one of the aviaries and he took to flying *at* my face. I am not generally frightened of birds but I began to get nervous, and almost wished the bird had died, for he seemed so fierce and unhappy, and I thought his brain was affected. We caught him and put him back in his cage, for he was really unsafe, and I attended to him nearly always myself, for whenever anyone came near he would strike out with his beak. After a long time "Rollo" quieted down and I ventured to let him loose again, and gradually trusted him on my hand. I had to go very slowly, for my own sake as well as the bird's, and for long I never ventured to pet him. But I think his reformation is now lasting and complete, and the real love he had for me has returned. The other day on offering him a tit-bit he distinctly showed me it was not *that* he wanted but just to come on my hand to be talked to and petted. He is just a little nervous, if stroked on his blind side, but in no way fierce, and what is very curious he seems to have entirely forgotten how to fly, though his

wings are very strong and perfect. I take "Rollo" often out in the garden on my hand, or put him on the ground whilst I work. He is very happy walking about near me, picking up bits of soil and green, and talking continually to himself the whole time. He will let me put both hands under him and pick him up, and a parrot must be very tame to let you do this without biting. I do not know if the bird would let anyone else touch him, as I look after him entirely myself. He is very happy with me, and we shall look forward to many pleasant hours gardening together, for he is quite a little companion in my work. "Rollo" lives almost entirely on sunflower and a little hemp, besides nuts, apple, and biscuit. It seems to suit him, for his plumage is very "tight" and so glossy and clear coloured as to almost shine in the sun. He never tries to bite me now, but is just as friendly as he was before the accident, though at the time I thought his case was hopeless and that he would never again be anything but fierce.

(To be continued.)

BREEDING NOTES OF 1916.

By W. H. ST. QUINTIN.

I should be grateful if a little space may be allowed for some long delayed notes upon certain breeding operations which took place amongst my birds last summer (1916).

A pair of Stone-curlews, hand-reared by a friend in the eastern counties in 1914, and which afterwards came into my possession, showed signs of breeding in the middle of May. The larger and darker coloured bird which had been reared from the egg in an incubator, though always very tame, was on May 14th extremely pugnacious, fighting with my hand, spreading her tail and wings, and uttering shrieks of passionate excitement. The other, which is the male is smaller and paler, with clearer markings, and is tame enough, but always wary. It was picked up half grown, and reared with the other. I am not sure if this difference in size is typical of the sexes, but I should think it is largely due to the different manner in which these two birds were reared. On May 15th there was

a "rubbing" in the gravelly sand of the aviary floor, and later a few small flat chalk stones were lying in the hollow evidently placed there by the birds. However, nothing came of it, and I have a note that on June 5th the Stone-curlews had left their rubbing, though they still seemed wary and suspicious.

On June 6th they had an egg in another place, and on the 7th the clutch was complete, the nest being in a good position, just within the protection of a lean-to shed; and one bird was sitting at 7 p.m. Both birds incubated, and the eggs were seldom uncovered for more than a minute or two, though in spite of their real tameness, the birds' natural caution led them to slip off the eggs, if they heard approaching footsteps. However, after sitting fifteen days, the birds gave it up, the eggs proving unfertile. Though the Stone-curlews are looked upon as a link between the Bustards and the Plovers, besides several of the more obvious points of difference, such as the assumption of a breeding dress in the case of the Bustards, the aviculturist notices that, unlike the Bustards, but resembling the Plovers, the Stone-curlews are fond of bathing, while the male shares in the duties of incubation.

On June 7th a Falcated duck was accidentally put off her nest in a nettlebed under a pine tree, some thirty yards from the water. The nest and eggs, of which there were five, closely resembled those of the common Wigeon, or Gadwall. On the 12th the nest was disturbed and three of the eggs were broken, possibly by others of the species, as they were seen quarrelling together. The two remaining eggs, which appeared quite cold, were put under a hen, and they hatched on July 3rd. The ducklings closely resembled young Wigeons, the most striking points of difference being that in the young Falcated ducklings, the sides of the head were reddish, and the bill altogether longer and stouter than in the case of a Wigeon of similar age. While there was a line through the eye it was not very well defined. There was no spot on the ear, and no line from the angle of the mouth backwards. These notes were made when the birds were about a week old. As they grew, the reddish patches on the sides of the head vanished, and they might pass for young Mallard ducklings. The walk of the duckling is clumsy like that of the adult. Altogether there do not

seem to be obvious grounds for including this bird in the genus *Querquedula* (Teal). In many ways it constantly reminds one of the Gadwall. The young were easily reared, and began to feather when three weeks old. At two months it was evident that they were a pair. Both birds greatly resembled an adult female, but the male duckling exceeded the other in size considerably, with a more conspicuous wing-bar, the whole wing being brighter in colour in his case, when the wing was spread.

On December 1st a few adult feathers were visible in the male, down the sides of the throat and chest. A gradual assumption of the adult plumage went on during the winter, and now, at the beginning of March, the birds' smart dress is practically complete, including the wonderful curved inner secondaries, a few brown feathers only remaining between the shoulders, and on the belly.

A pair of the charming Red-headed Bullfinch, described by our Editor in the Magazine for April, 1915, given to me two years earlier by our much-lamented fellow member, Major B. Horsbrugh, bred in a yew bush, making a typical Bullfinch's nest, and laid three eggs slightly less round, and more sparingly marked than those of the European species usually are. Incubation began on July 21st, and three young were hatched on August 4th (fourteenth day). One young nestling died, but the other two had left the nest on the 21st, and were able to fly a few yards. The parents were delightfully confiding, and would fly up and perch on a bundle of seeding weeds held out to them. The young were partially fed on ripening seeds of groundsel, shepherds-purse, and dock; but the parents collected a great deal of small insect food, probably aphids, and searched foliage and branches diligently, as well as catching a good deal on the wing, in which performance they showed a good deal of agility. The young, which turned out to be a pair when first fledged, showed no colour, yellow or green, and their beaks were yellowish, instead of black as in the parents.

By Christmas they had almost assumed the adult plumage, and now (March) they are indistinguishable from the old birds, so that I am glad that I separated them in good time.*

* [This is, we believe, the first time that this species of Bullfinch has successfully reared young in the British Isles, as is also perhaps the case with the Pink-browed Rose Finch.—Ed.]

A pair of the Pink-browed Rose Finch (*Carpodacus rhodopelus*) nested only 4 ft. away from the Bullfinches, in the same yew-bush, though there were an abundance of vacant sites in other parts of the large aviary. The Bullfinches were the first-comers, but they raised no opposition, and five young Rose-finches left the nest on August 25th. The nest was like that of a Greenfinch, perhaps rather smaller and with more of a cup. Unfortunately the young were hatched before the nest was located, and the eggs were not seen.

The parents fed chiefly on insects, and hunted bushes and ground industriously. Probably they fed also on half-digested birdseed, but they paid no attention to the "trusses" of seeding weeds, supplied at short intervals for the bullfinches.

The male parent showed plenty of "colour" last summer, but the young family finally reared (three, for two disappeared) greatly resembled the adult female, though one seems to me to have the eye stripe more clearly defined, and may turn out to be a cock. These Rose-finches are shy and most reclusive, and are not particularly interesting birds to keep.

We had one Eider's nest last spring, a duck selecting the same (to our eyes very unsuitable) site, as she had used for several previous seasons. But this time she laid five eggs, the largest clutch which I have ever known here in an experience of thirty years with these birds. Five strong ducklings were hatched under a hen—one died suddenly on one of the few hot days of last summer (August 4th) probably sunstroke, to which eider ducklings are very prone; but the other four were successfully reared. Curiously all five turned out to be male birds.

DEVOTION.

(*The True Story of a Pair of Pigeons.*)

By AUBYN TREVOR-BATTYE.

In the sea-caves of the coasts of Britain and in the rocks of many European countries live certain pigeons which, because of their colouring and of their haunts, are known as Blue Rock-pigeons.

Indeed, there are races of the same bird in almost every country of the Old World. All these races are very much alike—blue, with two black bars across the wings, and a black bar on the tail; but whereas our bird has white feathers above the tail, this character becomes less distinct as we go East, until, in Lower India, it is lost altogether. From their rocky abodes these birds have spread to cities; they are equally at home about St. Paul's Cathedral, St. Mark's in Venice, San Sophia in Constantinople, or the mosques of Delhi, but, as cave-dwellers by origin, have never really taken to the habit of perching in trees. Although so common, "Blue Rocks" are birds of great interest because they are the ancestors of all domestic pigeons. Just as all breeds of poultry are sprung from jungle-fowl (and this is why poultry do so well in a wood), so each variety of fancy pigeon—Pouter, Fantail, or what not—is a development from the Blue Rock-pigeon.

Now, excepting under the specialised form known as "homers," the birds are not very often found in dove-cotes; fancy pigeons are more popular, and, further, although Blue Rocks adapt themselves to a half-wild life in the towns, where parapets of buildings supply the place of ledges in caves, they are not very easy to establish in the ordinary dove-cote. The only place, indeed, in our neighbourhood in which the writer happens to know for certain that they have been strongly established is Adhurst St. Mary. We were therefore overjoyed when Miss Mary Bonham-Carter (whose life was kindnesses) presented us with three little pigeons. Two had just reached the "squeaker" stage, one was barely out of "squabhood," and though it lived to become the pet of the schoolroom, it signalised its first day of liberty by fatally falling down a chimney. The other two—they proved to be a pair—grew up quite happily in the dove-cote. Unfortunately, just about the time when they had their first nest, they were ejected by a pair of Barn Owls. There was no excuse for the owls; out of several boxes up in the trees they had chosen the one they liked best, in this they had reared at least one family, and they could not wish for better quarters. Much as we love our owls we did not want them in the dove-cote; however, in they went, there they are still, and there, it seems, they propose to remain. It mattered little to the

pigeons; an open window gave them access to a loft, and here they nested again; indeed, at one time, things really seemed to be shaping well for a little flock of Blue Rock-pigeons. But it happened that we were away from home*for rather more than a year, and during our absence the loft was visited by a poaching cat. The last tragedy took place just as we returned home in May, 1915, when the cat finished its ravages by killing the Adhurst pair; nothing was left but their one surviving orphan. It was all too sad; we had to start again from the very beginning, or worse—with one pigeon instead of two.

The best chance of starting these pigeons is to begin with a nestling pair; yet it seemed just possible that a new pigeon might be induced by the one already here to stay, and since a flock of tame pigeons (usually sprung from a single pair) become much bred "in and in," it was best to try and get "fresh blood." Before the war these pigeons could be bought almost anywhere for a shilling apiece, for they were constantly being netted for pigeon-shoots, but now not a Blue Rock was to be found. Every likely place—Leadenhall Market, the slums of Bristol, the dealers in Liverpool, the columns of the 'Exchange and Mart'—was tried, but tried in vain. The answer was always the same, "The Government regard them as 'homers,' so we are not keeping them." Our little foundling, then, had to remain companionless, and for the present the idea of keeping Blue Rocks had to go. In this strait some kind friends gave us two pairs of Modena pigeons, very beautiful birds, in which the black wing-bars are curiously reproduced in chestnut on a blue ground. They were put into a place which we will call the aviary.

The tragedies of his childhood had made the young Blue Rock (it turned out to be a male bird) very wild and shy; for some time, if feeding, he would start off on the wing at the slightest sound or sudden movement; but he became tamer and tamer, until at last he would feed from the hand. We became very fond of this bird, and somehow he took the name of Tweetie. All through that summer and the winter following Tweetie remained about the place alone; not literally always quite alone, for, from time to time, parti-coloured pigeons would appear from somewhere else to visit him, but they never stayed long. Spring came, and then we felt

sure that Tweetie would soon leave us to take up his quarters in some neighbour's dove-cote. The parti-coloured pigeons came more often with the spring; one in particular, a reddish hen with white patches, played up to Tweetie a good deal, but to no purpose—Tweetie was an aristocrat, and he knew it, and would have nothing to say to a mongrel bird. And then he began to fly round in ever-widening circles, and then to disappear for hours at a time. He always flew south; one could see him flying round wider and farther and over the trees, until suddenly he was off like an arrow, winging his way past church and village to be lost to sight. But he was always home by roosting time. The loft where he was hatched seemed to hold memories too sad for Tweetie; from time to time he flew in at the window, but always hurried out again, and the dove-cote was held by the Barn Owls; he had therefore made his quarters away up in the cornices of an old barn, whose timbers, even in the worst weather, gave him plenty of chance for playing about.

Summer wore to autumn and nesting-time had passed; and then there fell a day when the bird went off on one of his long, straight flights, and that day he did not come back; the sun went down, the dew fell, and the old barn was empty. The sun was high on the third day when a shadow passed across the grass, and on fanned wings down over the tree-tops came gliding a pair of pigeons and settled on the house; Tweetie had brought home a wife! But for the absence of the white spot she was like him to a feather. Now, Adhurst St. Mary is by the map two miles off as a pigeon flies, so the pair had made a pretty fair flight. Tweetie went on in a rather ridiculous way with this new possession; he puffed out his chest, trailed his wings and made circles round her, cooing, while constant bowing must have made his back quite stiff. He took her to see everything he could think of; they flashed into the loft and out again, and settled on the dove-cote, peeping over to see about the Barn Owls whom they judged to be asleep at that time of day. But their great haunt was the old barn where much cooing went on among the beams. The new bird, rather shy at first, soon grew tame, though never quite so confiding as her mate. In the depth of last winter they began collecting straws for a nest, till the cold

weather stopped it. But, nesting or no, the old barn was still their favourite retreat, and always, after feeding was finished, they would fly back there and disappear in its recesses. And here we may explain that all our birds have been on war rations; that is to say, the feeding is done most carefully and not in the liberal way of better days. Only just so much food is given as a careful estimate shows will provide each bird with a cropful at each feeding, and the birds have been in perfect health, as indeed birds always are on this system.

In the opening days of March the Blue Rocks began again to nest. The nest, of course, was somewhere up near the roof of the old barn, but in those dim recesses no one could say exactly where it was. The weather of that time we all remember, and it seemed very doubtful whether this second venture would meet with any better success. The birds evidently sat for a time (pigeons sit alternately), but as both were seen off the nest together now and then, they seemed to have given it up, though as the keeper of the pigeons was absent from home for some days, they were not very carefully watched. On his return the pigeons were about as usual, taking their food and flying back to the barn just in their accustomed way. On the last day of March, a Saturday, they were to be seen sitting side by side on a window-sill looking much bunched up and unhappy with the cold, for it was a bitter day with showers of driven snow. On Palm Sunday morning, April 1st, they took their food as usual, flew back to their barn, and—were never seen again. Sunday passed and Monday, Tuesday came, and yet the calls to feeding brought no Blue Rocks; Tweetie and his mate were missing, and things were very sad.

That day the snow lay thick upon the ground. In the course of the morning someone looking from a window suddenly cried that Tweetie had come back! So indeed it really seemed, for there, sitting in the snow, close to the aviary, was a Blue Rock-pigeon! The Modena pigeons in the aviary were in a state of great excitement, flying about and cooing all the time. But it was not Tweetie and what do you think it was? It was a young Blue Rock, perfect in feathering, but the yellow down still upon its head. More strange still, inside the aviary was a second youngster, who had

evidently managed to get in through a small opening underneath a board. The first bird was the bigger and was all blue like the hen we had lost; but the smaller bird was the absolute image of Tweetie down to the white tail-spot. So, after all, everyone had been wrong, the nest had been deserted, but away up in the shadows of the old barn, in spite of all the frost and snow, the eggs had been hatched and the little ones brought up. But was it not wonderful that these young pigeons, only able to fly so very feebly, had not only lived so long without being fed, but had actually managed unaided to leave the barn and find their way in the snow round to the aviary in answer to the cooing of the Modena birds! They are now doing well in a new pigeon-room, and the hopes for the future rest on them, the children of Tweetie and his Adhurst-mate.

* * * *

You already see the point of the story. Young pigeons are not fed like other young birds, they actually feed themselves from the parents' crop; for at that time the food in a pigeon's crop changes its character to that state known as "pigeon's-milk," though this soon gives place to solid food still taken from the crop. At this time, therefore, the old birds need at least a double allowance of food, part for their young and part for themselves. But no one had known of the nestlings' existence, and so these poor, devoted birds had brought up their young on a single allowance of food, and in doing this had starved themselves. They might have given up long before, have allowed the young to starve, and have kept the food for their own wants. But, with a wonderful practice of devotion and self-sacrifice, they had carried their task of affection through; and it was not until that day came when their full-grown young being able to fly, they judged them able to fend for themselves, that they at last took wing for some more hospitable home where at least they could get enough to eat.

"Well, that is not much of a story!"

It is not much of a story; but I think perhaps it was just worth telling in war-time, don't you?"

EXOTIC BIRDS' ENDURANCE DURING A COLD WINTER (1917) IN NORTHERN FRANCE.

By J. DELACOUR.

Last winter was certainly the coldest I ever experienced at Villers-Bretonneux (Somme) since I have kept birds. Up to January 20th the weather was soft and rainy; afterwards a little snow fell, and it froze hard until the middle of February; about every night the thermometer indicated -15° C. and more.

The ice in the pond exceeded 45 cm., and all the birds kept out of doors had only ice or snow to slake their thirst.

All that time the sun shone and the wind blew only the last week; and the war prevented the cold from being mitigated on account of want of coal, etc.

The following birds bore the cold weather outdoor without any shelter and are in good health:

Grey Rheas, Emus (their clutch being stopped by the frost), common, black, and Bewick's swans.

Geese.—Cereopsis, Indian, Upland, Maned, etc.

Ducks and Teal (even ringed Teal), Peafowls (common, black-winged, white, and even six young "spicifer" recently imported, which were displaying on the ice).

Pheasants.—Monauls, Tragopans, Peacock, Elliott, Mikado, Sœmerring, etc.

Crossoptilons, lineated, white-crested, purple, black-backed Kaleeges, Siamese Fireback, Californian, Cuban, Montezuma Colins.

Pigeons and Doves.—Bleeding-heart, bronze-winged, grey-headed; triangular spotted, white-backed, crested, white-spotted, and fair Pigeons (and their hybrids); tigrini, palm, ruddy, blue-spotted, bar-shouldered, zebra, diamond, scaly, etc.

Goffin's, Leadbeater's, and rosy-breasted Cockatoos; Swainson Lorrikeets; black-headed Conures; Senegalese Parrots; pileated Parrot (*Peonopsittacus piliatus*); Adelaide, Pennant's, etc. Parra-keets; red-billed Liiothrix; Virginian cardinals; black cow-birds (*Moluthrus bonariensis*); and numerous Weavers (Madagascar, orange, crimson-crowned, etc.).

The cranes, storks, etc., were out of doors during the day, but driven into an unheated house for the night. The ostriches and white rheas remained in their unheated shed, whose windows were opened in the morning. The macaws and other parrots and parakeets lived well in an unheated room and bore the frost every night without harm. The other birds remained in the heated house when indeed the thermometer indicated sometimes only 4° C. In spite of this low temperature, sun and sugar-birds, tanagers, etc., never had any disease; two birds only died of pulmonary illness, but perhaps the most valuable—they were both the Wilson's Paradise birds. It is a great pity, for they were in such good condition. The great Paradise bird did not suffer.

Other losses are the following :

Some great egrets, stupidly kept out of doors during the first days, and though sheltered afterwards, soon died, as well as some pochards and tufted ducks, which had no water to swim in; the black-necked swans, variegated sheldrakes, black-backed geese, and all the tree-ducks, kept indoors only at night-time and out of doors by daylight, died also. The American black-backed geese lived well.

On the ice some crows killed about twenty teals and small ducks, as well as some black-headed gulls. One splendid cock Borneo fireback and one hen Germain's peacock pheasant were found dead, although sheltered by night.

Nevertheless, one may consider that the exotic bird's endurance of the cold is quite wonderful. I hope these observations will be of some interest for the bird-lovers, and that my failures will assist them in avoiding losses such as mine during future winters.

SOME TASMANIAN BIRDS' NESTS.*

By H. STUART DOVE, R.A.O.U., West Devonport (Tas.).

(Continued from p. 237).

During the last week of October a tunnel of the Spotted Pardalote was investigated near the Devil's Punchbowl, Northern Tasmania. A nest was found ready for eggs in the terminal chamber, and was, as before, a sphere of fine gum bark, with side entrance.

* From the 'Emu' (with acknowledgments to the Editor).

On another occasion, while exploring the vicinity of Distillery Creek, in the Launceston district, we encountered a large tree which had fallen during a gale, and which still had a quantity of soil packed into the hollow of the butt. Into this mass of earth a Pardalote had burrowed, and in the chamber at the end had formed a nest of dry grass, which was vacant. The bore was in just such a situation as depicted in Campbell's 'Nests and Eggs of Australian Birds' as the breeding-place in Queensland of the Black-headed Pardalote, where the tunnel is driven into the soil still adhering to the butt of an overturned forest giant. It is contrary to the usual practice of the Spotted Diamond-Bird in Tasmania to construct its nest of grass, therefore the example cited above may possibly have been that of the Yellow-tipped Pardalote (*P. affinis*), or, in vernacular, the "Tree Diamond," because it generally utilises a hole in a tree-trunk or branch, often at a considerable height, in which to place its grass nest. But it is said occasionally to make an earth bore, therefore it is possible that the tunnel among the upturned roots may have been the work of that species. As there were no eggs, nor could we see any birds about the trunk, it was not possible to make certain. The Yellow-tipped Pardalote is the lively little bird which appears in numbers in the springtime among the big eucalypts, calling incessantly "Pick-it-up! pick-it-up!" or, as some interpret the notes, "Wit-e-chu." While living in the forest near Table Cape, North-West Tasmania, I used to notice about the same time each spring this familiar call resounding among the trees where it had not been heard all through the winter months, and from this fact, and not seeing any of the birds themselves, I believe the Yellow-tipped species to be a migrant, although the Spotted Pardalote (*P. punctatus*) stays with us all the year. The Pipit (*Anthus australis*), popularly known as the "Ground-Lark," certainly does leave us in autumn, and reappears just about the same time in spring as the "Tree-Diamond," which is strong presumptive evidence in favour of the latter's migration. The Pipit is another of our ground-builders, constructing its cup-shaped nest of grass in a depression of the earth, usually under a tuft. This species has a curious sibilant note, something like "Ssssiou," and its song, delivered during a short ascending flight, partakes of the same sibilant character; the descent is

accomplished by a slanting glide with wings outspread. It is one of our most familiar birds; every paddock of short grass, racecourse, recreation ground, or similar enclosure has its one or more pairs of Pipits through the spring and summer.

SEAWEED AS A NESTING MATERIAL.—Some of the Sordid Wood-Swallows (*Artamus sordidus*), which visit us every year for nesting purposes from the mainland, did not go inland as usual this year (1915), but remained in the vicinity of Mersey Bluff to breed in the small white gums which are native there, and in the imported Monterey pines. During December, 1915, one of their nests was blown down from a tree close to the beach, and was found to be perfectly new and clean. The builders had made a new departure for Wood-Swallows (as far as my experience goes) by forming an outer nest or substantial foundation of dry seaweed from the beach, and then placing a light, ornamental, inner nest of fibres upon the weed. The foundation was mainly stems of hard, dry, black seaweed, with one or two small dry gum-twigs interwoven; on the sides were a piece or two of the weed with narrow blades, but stems formed by far the larger part. The upper nest was formed of very long, light-brown fibres (one measured 15 in. in length), curved into a shallow cup upon (and mostly within) the black outer nest. The measurements were: Outer nest—width, 6 in.; height, 2 in.; inner nest—width outside, 4 in.; width inside, $2\frac{3}{4}$ in.; depth, $1\frac{1}{4}$ in.

Mr. H. C. Thompson, of Launceston, has supplied me with details of nests which he and his son, Mr. P. C. Thompson, found in December, 1910, near Kelso, Northern Tasmania. The first was that of the Dusky Robin (*Amaurodryas vittata*), built in a niche in a gum-tree some 50 yards from the beach, and about 5 ft. from the ground. The foundation was composed of black, narrow, dry seaweed, also a few pieces of green weed with velvety surface; sides of nest were of usual material—grass, pieces of bark, and a little spider-web—with a few pieces of seaweed interwoven. Measurements not taken, but about usual size. In the same district several pairs of Tree-Martins (*Petrochelidon nigricans*) were observed going in and out of an aperture, about 15 ft. from the ground, in a very large gum-tree. Some of the birds were carrying pieces of seaweed 3 in. or 4 in. in length. Mr. Thompson and son obtained a ladder, and,

having enlarged the opening, found that there were three nests some distance above the aperture. The birds had made a run from the aperture to the nests by placing seaweed upon the decayed wood. The nests were shallow depressions scraped in the wood-dust, with a few gum leaves and bits of seaweed for lining. Another nest was in the small hollow spout of a large gum, about 40 ft. from the ground, and had to be reached with the aid of a rope. In the spout about 9 in., a few pieces of grass and leaves and seaweed had been placed, and on this were three young Martins. All the nests were within 200 yards of the beach. Some of the weed used was green, but most of it was dry.

CORRESPONDENCE.

DEAR SIR,—It was with much interest that I read Mr. Teschemaker's article in the May number of the 'Avicultural Magazine.' I have kept hand-reared nightingales for some years, and they make the most charming and intelligent of all bird pets, and under proper conditions, the happiest. I find that nightingales do best in a large cage in a sunny room, where they can get at least an hour's liberty every day.

My present beauty always picks out the hottest corner and suns himself, spread out like a butterfly. He is a fine specimen, well coloured, and a wonderful songster; he has always been much petted and his tameness amounts to positive cheek. The first nightingale I had was a much smaller and greyer bird, and only on rare occasions made the slightest approach to a song.

Bechstein mentions two varieties, and some fanciers recognise two distinct British species—the small, greyish bird, and the large brown one, both of which types were well marked in my two birds, both undoubted cocks.

Only those who are willing to spend a certain amount of time and trouble on their pets should attempt to keep nightingales, or any of the soft bills. If one must keep a bird in captivity the least one can do is to look after its health and comfort.

Absolute cleanliness is essential, and, of course, suitable food. Cecto, powdered biscuit, an occasional meal of bread and milk, finely minced cooked meat used with caution in cold weather and when insect food is scarce, cooked potatoes and cabbage, chopped lettuce and chick-weed, grated carrot, cheese, chopped currants, grapes, apple, meal-worms, and every spider, ear-wig, or blue-bottle one can lay hands on—all find a place on my bird's menu. Nightingales certainly require a certain amount of grit, and when insect food is not available, something is wanted to take the place of beetles' wings, etc., which help the formation of the little pellets of undigested matter which the bird ejects.

If a caged nightingale looks puffed out and mopy, let it loose in the room for a time. I have seen mine devour seed-husk, and even small feathers, which seem to act much as coarse grass on a dog.

All soft-bills require great care with regard to the feet. Damp cocoa-nut fibre with a small heap of sand in a corner makes an excellent floor, and there should be a good supply of clean water for bathing. I have seen my bird sitting in his bath fairly shouting out his song.

As Mr. Teschemaker remarks, nightingales have an artistic temperament and are very touchy about their talents.

Mr. Lund, of Burnham, to whom I owe most of my success in bird-keeping, once sent one of his birds as a pupil to mine, who was in full song. I looked forward to a glorious duet, but to my sorrow not one note would my rascal utter. For a week he kept up a sulky silence with intervals of most shocking bad language. When I sent Mr. Lund's bird home my Philomel nearly burst himself with song.

On one occasion only I had a serious row with my pet. It was all about a fearsome-looking insect he was trying to swallow. I was sure the thing looked unwholesome and tried to grab it. Of course he was much annoyed and with a tremendous gulp he bolted the wriggling victim and then turned and deliberately hit me with his two little fists, like a diminutive and very angry game cock.

Believe me,

Amerden, Taplow, Bucks ;
May 12th, 1917.

Yours faithfully,
ROSA M. WHITLAW.

BREEDING OF YELLOW-RUMPED TANAGERS, ETC. RICE AS FOOD FOR BIRDS.

To the Editor of the Avicultural Magazine.

You will, I think, be interested to hear that I have a nest of the large black tanagers with sulphur rumps (*Rhamphocelus icteronotus*). They laid two eggs, both of which hatched, but one young bird disappeared on the fifth day, the other is doing well so far. I have also a pair of purple-headed glossy starlings wanting to nest, but they do not settle down to any one spot. If the starlings are successful the feeding may be a difficulty, but I am glad to say I have heaps of mealworms and stick insects. By the way; the mealworms never did really well with me till I used straw bottle-covers in the breeding boxes, with only two layers of sacking on the top. I am inclined to think the sacking was apt to heat and kill the eggs, I have now almost endless worms from two breeding boxes.

Well; you will remember that I had rather a bad time with the tanagers Goodfellow brought from Ecuador. You will also remember they were fed largely on rice, and, that as he had imported on rice, I stuck to it. Some time ago I was talking to Sir George Watt, who is perhaps the greatest authority living on rice, he is also a medical man. In our discussion I got Sir George on to my birds, and managed to interest him; I told him the symptoms, and he at once said that they were the symptoms of feeding on a starchy rice such as the large Burmah rices,

which, except for making puddings, were not fit for human food, and would almost certainly be fatal to birds. I stopped giving rice to the tanagers, but alas, a bit too late. Since I stopped rice as a food, those birds that showed the bad symptoms, viz., a much distended bowel, have recovered.

Have you ever eaten your crane eggs? they are excellent. The flavour and appearance is like plover eggs, and boiled hard and quartered on a salad cannot be beaten.*

Yours sincerely,

Hoddam Castle, Ecclefecham, N.B.;

E. J. BROOK.

June 11th, 1917.

FOOD FOR NESTLING CHAFFINCH.

The Editor has received the following from a child friend, which is quoted verbatim:

"Please can you tell me how to feed my baby chaffinch that I have got? It is fairly old and sits on a perch. I have been giving it egg, but it seems to need something else, it has been very well, but to-day it is very weak (*sic*) and its tongue is very pale!!????? Seed pearl (a diamond dove) is much better in the new cage, her tale (*sic*) has grown again. You will write?"

P.S.—Ought I to give my chaffinch water?

* * * * *

Advice was given that failing anything else, a little bread scalded in boiled milk and squeezed fairly dry, with crushed hempseed or maw seed added and a little yolk of egg might do, and water certainly; a drop on the finger after eating.

ERRATA.

See Dr. Amsler's article in June Magazine.

Page 217, line 9, *Secretarius*.

„ 218, „ 21, clean *meal*.

„ 222, „ 35, what an example to the rest of the world are we aviculturists!

„ 223, „ 1, *peach*-faced lovebirds.

* [Even in war time we fear we could not bring ourselves to swallow what might be a Manchurian crane, etc.—of the future.—Ed.]



THE SHAMAHS' AVIARY.

Photo. by G. E. Low

Adlard & Son & West Newman, Ltd.

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BEING THE JOURNAL OF
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AUGUST, 1917.

FURTHER EPISODES IN THE LIFE OF A PAIR OF SHAMAS.

By G. E. Low.

The springtime having at length arrived, my Shamas, with immense satisfaction, found themselves free of all bars and cages in their summer quarters—a small aviary, of which they are the sole tenants.

Owing to unseemly bullying tactics on the part of Bob, which his wife did not appear to appreciate, also in consequence of a rather sudden drop in temperature, I considered it wise to remove her indoors again for a week. During this period I gave her plenty of live food, and when she rejoined her husband she seemed in much better form.

Almost immediately building operations started, in the house provided for the purpose—a good-sized oak box, covered in front with virgin cork to resemble a tree trunk, with an entrance bearing a somewhat remote resemblance to a woodpecker's hole.

Attached to their compartment is a glazed shelter, for sitting in, one end of which is formed by the wire-netting of their aviary. This wire-netting is fitted with a small door, through which the birds can be admitted into the shelter, if desired, and I am in the habit of sitting there with one or both occupying any portion of my anatomy they may fancy.

On Sunday, May 6th, through a very unfortunate oversight

the small communication door was left open, the omission not being observed when the outer door was opened to air the shelter in the afternoon.

On returning from a short walk I was horrified to find the aviary empty, and at the same time to distinguish Bob's song of triumph in the distance, floating on the breeze over fields and hedges, the attraction of spending their honeymoon abroad with travelling so cheap being altogether too much for them.

Anyone who has had an experience such as this will be able to appreciate in a measure my feelings of blank despair and disappointment at that moment. A great piece of luck, however, supplied me with the key to the situation, the bride being discovered sitting on a crossbar—unseemly attitude—in the greenhouse, looking in no way discomposed, with door and windows wide open.

She consented to be transferred to a cage, and having fully explained to her the situation we proceeded to search for the sporting bridegroom.

I eventually marked him down in a thick thorn hedge in rather a public locality, singing lustily at intervals, the quality of the song being considerably ahead of his usual performances. He made a very attractive picture, flitting about through the bright green foliage, always at a discreet distance.

I deposited Kate on the grass with an empty cage on the top of hers, baited with mealworms and cockroaches, a wire being attached to the door, which was propped open.

Making myself as scarce as possible I thought my sporting friend would quickly come down, as he is usually so very tame. Having tasted freedom, however, he was as wild as possible, and I could see him regarding me from the middle of the hedge with a look in his eye which seemed to convey: "If you hadn't got my unfortunate little wife boxed up there, don't flatter yourself I should long remain hanging around in your neighbourhood." However, the attractions of cockroaches and mealworms, rather more I think than those of Kate, were his undoing, and after over three hours' patient waiting he hopped into the unoccupied cage at just 7 p.m., and the door was rapidly closed on a very disgusted bird—need I say with what satisfaction to his owner?

FEMALE SHAMAH AND YOUNG BIRD.



MALE SHAMAH CARRYING FOOD TO FEMALE IN
THE NEST.

Both the honeymooners very soon found themselves back in their old quarters. Building operations were almost at once resumed, and on the following Thursday (May 17th) the first egg was laid. Five completed the clutch, and four young birds hatched out on June 1st and 2nd. On June 12th the first baby left the nest, being put back in the evening, and on the following day all left the family roof.

It was very interesting to watch the parent birds' efforts to induce the young ones to come out, going to the entrance with food and withdrawing without giving it.

After the house was empty the cock entered and had a good look round, singing to himself, *sotto voce*, all the time, with an occasional chuckle suggesting the inquiry, "Any more for the shore?" He spent a good deal of time inside the box at this juncture, constantly exhorting his wife to hurry up and settle the old nest for a new family.

On June 18th the young birds were pretty strong on the wing, although not yet inclined to feed themselves, and the first egg of the second batch was laid.

For a day or two before the young left the nest I noticed the hen sitting, often for quite a long time, on the edge, making occasional dives into the nest with her beak. I cannot decide what this was for, as it had nothing to do with sanitary arrangements, but suggest she may have been stripping the quills from the wing feathers. The parents constantly carried grit by itself to the young, and often fed them when quite young with large cockroaches, which they preferred to the other items of their menu—mealworms, gentles, and live ants' eggs.

When the hen was adding to the first nest, she occasionally forgot whether she was feeding young or building the nest, and the look of disgust on the face of the baby who had his mouth filled with hay was quite worth going a distance to see.

I noticed one of the young babies preening his feathers on the day after, and another actually taking a bath three days after leaving the nest, stooping and flapping his wings in the approved style, while five days after leaving home I saw and heard one make an attempt to imitate the singing of an avadavat in the adjoining compartment.

Altogether the family is a very precocious one. I have been able to observe them pretty closely whenever I have had leisure, and the occupation has been an exceedingly fascinating one.

As I write the hen is sitting on four eggs after laying five—* the last one being deposited on the ground. Seeing her laying it, I immediately transferred it to the nest in a spoon, but I noticed it was thrown out next day.

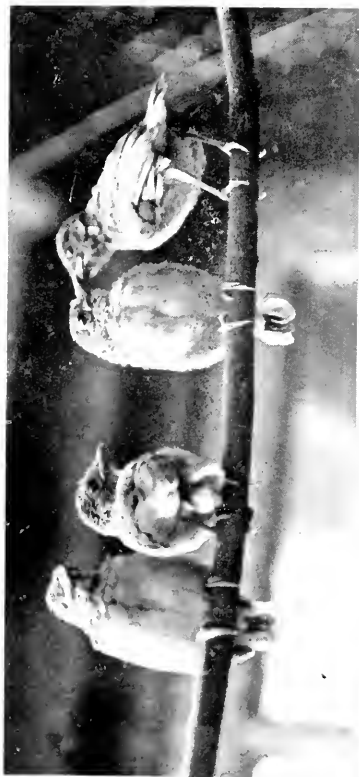
From the results of my experiment others may be tempted to try the effect of allowing their birds to honeymoon in the open, but I don't recommend it as a pastime.

LORIKEETS BREEDING AT THE ZOOLOGICAL GARDENS.

By D. SETH-SMITH, F.Z.S., M.B.O.U.

It was recently decided to renovate the interior of the old Parrot House, and in order to do this it was necessary to remove all of the birds. The Society's motor van was requisitioned and the birds conveyed in their cages to the Sanatorium on the other side of the Gardens. After eleven journeys had been made the house was empty with the exception of the large cages arranged along the north side, which are mostly given up to lories and lorikeets. The occupants of these were transferred to small cages to be carried over by hand, their cages being left to be cleaned and painted. The last of these large cages contained a pair of lorikeets, of which the male was a Swainson and the female a Red-collared. These were caught and taken off in a small cage as the others had been, but no sooner had they been removed than a faint squeaking was heard proceeding from a box hanging up in their cage. An investigation revealed two baby lorikeets, thinly covered with whitish down. Here was a difficulty. The work in the house had already commenced and could not be stopped, but to remove these newly-hatched chicks seemed risky. It was decided to fetch back the old birds at once and then on the

* [Mr. Low writes that two young birds have been reared from the second clutch of eggs, and that the hen is sitting for the third time.—ED.]



YOUNG SHAMAHS (*Citticichla macrura*).

Photo. by G. E. Low.

following day to remove birds, cage and all, to a warm room in the Sanatorium. On their return the old birds promptly went into the box to satisfy themselves that their chicks were still there and flourishing.

The following morning, when the keeper climbed into their large cage, the two parent birds immediately disappeared into the nesting-box, which was just what we wanted them to do. A cloth was clapped over the entrance hole and the box taken down and carried carefully away. The cage, which is about six feet high, was then transferred with its stand to the motor and conveyed to the Sanatorium. The nest-box with its contents was then hung in its usual position in the cage and the cloth removed. The birds did not seem to resent the shifting about in the least, but went on feeding their young, which emerged from the nest five weeks later, in perfect plumage and condition, their colour almost as bright as those of the adults, but with blackish bills. They are two beauties, taking rather more after the Red-collared than Swainson's lorikeet.

They are now back in the Parrot House, none the worse for their travels.*

THE BLUE-CROWNED HANGING PARROT (*Loriculus galgulus*).

By E. G. B. MEADE-WALDO.

I have never been a parrot keeper, but in 1906 my son brought home from Singapore two of the above-named hanging parrots. They were then quite similar in plumage, but one was considerably smaller than the other and had flesh-coloured feet; both were apparently young birds, and the smaller one was evidently so. They were kept in a cage for some time and given a sop of Nestlé's milk with water, biscuit soaked in it, also sugar-cane, apple, and bird-seed, canary, etc. When the weather got warmer they were put into a

* [The above was written in March last, the incident described having occurred in the early part of February. The young birds are now exhibited in a large cage next to that of their parents in the Parrot House.—D. S.-S.]

roomy aviary with abundant shelter if they chose to avail themselves of it; this, however, they never did, but persisted in roosting and hanging on to the wires of the most exposed part of the aviary. I eventually managed to fix a slate over their favourite roost, and that was all the shelter they ever had. They both moulted out that autumn, and, as I expected, the small bird proved to be a male, the base of the feathers on the throat showing scarlet, also the feathers on the rump became intensified in colour. We took them in that autumn and they spent the winter in the house. In the spring they were again let loose in the aviary and in the autumn moulted out, the young cock now assuming full adult plumage. The following spring they paired, and the hen built a nest in a deep hole in an old apple tree. I have before described the display of the cock, and how the female carried long strips of green aucuba leaves into the hole, the strips of leaves being inserted into the feathers of the upper tail coverts.

Although the hen sat practically the whole summer, and the eggs were fertile, no young were hatched. These proceedings went on year after year until the late autumn of 1915, when in a terrific storm the door of the aviary was burst open and the little cock was whirled away and never seen again. The hen was left in the open aviary all that winter and is there still, having survived these dreadful freezing gales, and is apparently in perfect health. I notice a few things in connection with this, viz. that in *very* cold weather she does not hang up, but roosts in the ordinary way; also that as her sop quickly freezes she only has a good fill of it twice a day, and makes up with plenty of seed; the seed is not shelled, but is nibbled up and eaten, only a little dust remaining.

It is evident that these parrots are easily kept and much hardier than is usually supposed, but they must be acclimatised.

I think them unsuited for a cage; they are extremely dirty birds and also seem to like a great deal of exercise. They have pleasant gentle voices, but ours never became really tame.

DIRECTIONS FOR MAKING A METAL BIRD-CAGE.

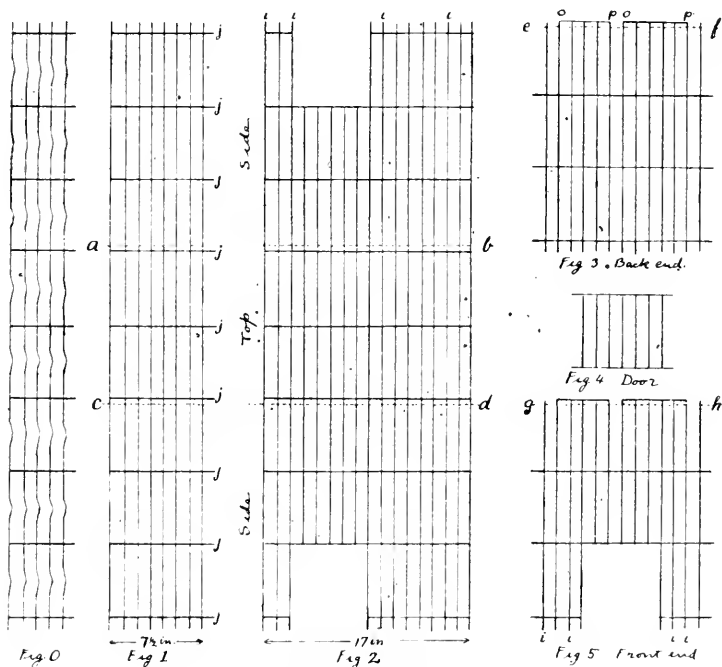
By WALLACE CRAIG.

One who keeps birds should have facilities for isolating any individual bird when it is sick, when it bullies others, or is bullied by others, or when various other causes make isolation desirable. This means that anyone who keeps many birds should have a considerable number of cages or pens, which, if bought, are very expensive, and often unsuited to one's needs, but which may very well be made at home at little cost. In my own early years of bird-keeping I struggled along with home-made wooden cages, but they were heavy, fragile, dirty, unsanitary, inconvenient in the matter of opening doors and changing perches, and so unsightly that they were not fit to be seen in the house, and their clumsy wooden bars obscured the bird from view. At last I set to work to see if I could make a metal cage, and after trying and discarding a few other types I developed the type of cage shown in the accompanying photograph, which has proved so satisfactory that I am sure others will be glad to know how to make a cage like it.

The first thing to be said about making an all-metal cage is that it is perfectly easy. In fact, the making of these cages requires no skill, only a certain amount of labour. The tools needed are a pair of flat-nose pliers, a pair of wire-cutting pliers, a file, a mallet (mine is home-made), a stick of wood cut into the shape of a chisel, a punch (any sharpened steel rod will do), a wooden block on which to place the galvanised sheet iron when holes are punched through it, two straight wooden beams about $3\frac{1}{2}$ ft. long, a similar piece about $12\frac{1}{2}$ in. long, and two stout clamps, such as shown in Fig. 7.

The construction of the cage is shown in the accompanying figures. Fig. 0 and Figs. 1-5 show pieces of a certain type of electrically welded "fencing" made by the Pittsburg Steel Co., Pittsburg, Pa., U.S.A. This comes in rolls containing a length of 150 ft. The width is 17 in., and in this width there are seventeen longitudinal wires or strands, as shown in Fig. 2, so that the distance from the centre of one strand to the centre of the next is $1\frac{1}{7}$ in. The distance

between the cross wires or stays is 6 in. Unfortunately for our purpose, each strand has a "tension curve" in it every six inches, as shown in Fig. 0; this is to give the fabric elasticity when used as fencing, but it is undesirable in a bird-cage, so the first thing to do (after cutting the pieces from the roll) is to straighten every curve—a task which, though it takes considerable time, is easily done with

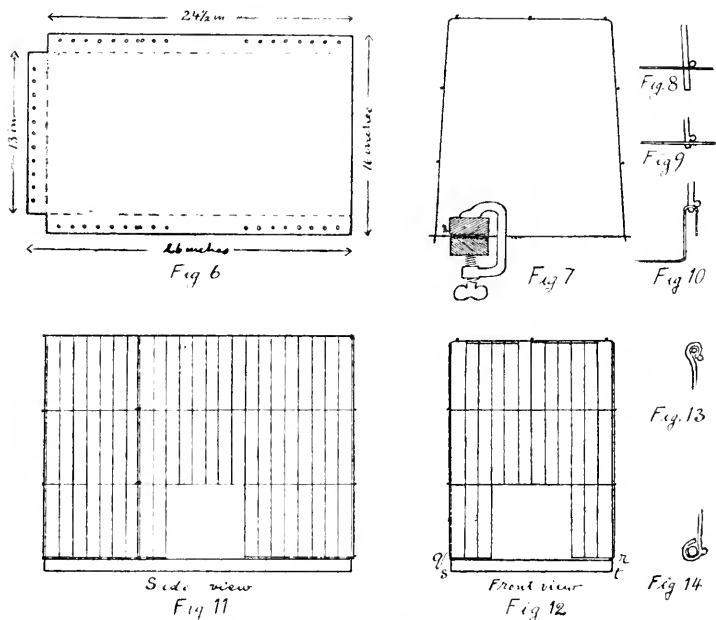


[From drawing by Wallace Craig.]

pliers and fingers, thus changing Fig. 0 into Fig. 1. Each cage is made of four pieces of the welded wire fabric, Figs. 1, 2, 3, 5, and a bottom of galvanised sheet-iron, Fig. 6. Since the cage is $24\frac{1}{2}$ in. long, we need two pieces of the wire fabric, Figs. 1 and 2, to make the length of it. These two pieces, after being fastened to the bottom, will be firmly united simply by bending the projecting ends *j, j* of Fig. 1 around the first strand of Fig. 2. Before being fastened to the bottom, these two pieces are bent at right angles along the

line *ab*, and again along the line *cd*, thus forming the top and two sides of cage, the top being 13 in. wide.

The bottom is made of a piece of thin galvanised iron (weight about $7\frac{1}{2}$ lb. per sq. yd.), cut as shown in Fig. 6. On this three lines are drawn, *kl*, *lm*, *mn*, and holes are punched along two sides and the back end, $\frac{1}{2}$ in. from the edge, as shown. Through these holes are thrust the projecting ends *i*, *i*, *i* of the wires in Figs. 1 and



[From drawing by Wallace Craig.]

2. The result is that the top and sides stand on the bottom as shown in end-view in Fig. 7. A view of the wire as thrust through the galvanised iron is shown on a larger scale in Fig. 8. The end of each wire is now bent back and clinched as shown in Fig. 9, and thus the side is securely fastened to the bottom. Now, as shown in Fig. 7, two straight beams of wood are laid longitudinally and fastened by clamps at each end, the edges of the beams following the line *mn*. With a mallet, and a stick cut in the form of a chisel, the edge of the bottom is bent up. The same is repeated on the other side along the

line *kl*. The result is shown in Fig. 10. Figs. 7-10 are all end-views. The back end of the cage, Fig. 3, is fastened to the bottom in the same way, the projecting ends of the wires being thrust through the holes, a straight beam of wood $12\frac{1}{2}$ in. long laid along the line *lm* and clamped, and the bottom bent up. It is at this time that the piece Fig. 1 is fastened to the piece Fig. 2 by means of the projecting ends *j, j*; similarly, the back, Fig. 3, is fastened to the sides. But when it comes to fastening the back to the top, I insert a connected piece, as *op*, Fig. 3, behind the first strand of the top, and bend the whole over, bending along the line *ef*; an end-view of the result is shown in Fig. 13.

The front piece, Fig. 5, cannot be fastened to the bottom, because the whole space *qrst*, Fig. 12, must be left open, for pulling out the drawer or inner floor. For this reason, take a stout wire (No. 12, American gauge; diameter, 2.8 mm.), place it in the position *qr*, and bend each end around the first wire of side of cage. Then take the front, Fig. 5, and bend each of its projecting wire-ends *i, i* around this stout wire as shown in Fig. 14. This front is then fastened to the sides and top in the same manner as the back was.

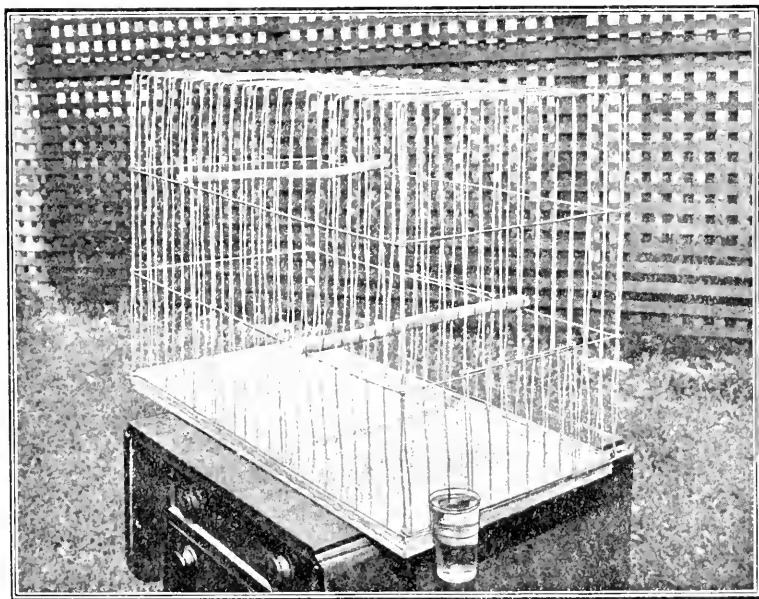
There are three doors—one in the front end and one in each side. Each of these is closed by a piece of the welded wire fabric cut as shown in Fig. 4. The four projecting wire ends are bent around the upright wires on either side of the doorway (see photograph); the door is opened by raising it, and it closes by its own weight.

Drinking-water, as is seen in the photograph, can be kept in a glass outside the cage, which keeps it clean, the glass being held to the cage by a single loop of fine wire. The bird puts his head out between the wires to drink. In some cases one must see that the bird learns to do this in order that he may not die of thirst. The quickest way for him to learn is to see another bird drink, and then have a chance to get a drink himself *from the same glass*. Once he has learned to put his head out between the bars to drink, he never fails to do this, and even seems to take a certain pleasure in it. Seed also may be put in hoppers that hang on the outside of the cage. Dr. Karl Russ* says that a cage should never have spaces

* 'Die fremdländischen Stubenvögel,' vol. iv, "Lehrbuch der Stubenvogelpflege, Abrichtung und Zucht," p. 41.

wide enough for the bird to put his head out between the wires, but I know of no reason for so absolute a statement. No harm has ever come to my doves from putting their heads out.

One of these cages complete costs me less than three shillings (about 70 cents) and one day's labour; yet it is better for my purposes than any cage made by the manufacturers, at least in this country.* It is so strong as to be practically indestructible. No



solder is used in the cage anywhere. One of these cages which went through the fire when my aviary burned two years ago is still in use; probably all would have been usable after the fire had not the roof of the building fallen on them. Although so strong, the cage is light, weighing only about $5\frac{3}{4}$ lb. without the drawer. The galvanised iron drawer weighs about $2\frac{1}{2}$ lb.; a zinc drawer would be much lighter, but during the present war zinc is too expensive. The doors are easily opened, and the vertical wiring renders it easy to open the doors and to place and remove perches. The wires are all galvanised,

* United States.

and the cage has such a light, dainty appearance that my wife is glad to have one in the parlour. Still more important, the cage offers almost no obstruction to viewing the bird.

The reason I put three doors in the cage is this: I can put any number of such cages in a row, side by side, and can have one, two, or more rows stacked on the top of the first. From the front, without disturbing the stack, I can give the birds all the attention needed, removing the drawer, placing perches and nests, giving seed, water, etc. The side doors are used to allow a bird, when so desired, to pass from one cage into the next, which is useful in many ways: as, for matching and mating: for allowing a timid bird to go into the next cage while his own is being cleaned; for allowing a pair of birds to occupy two cages, or more than two; and for performing many experiments on the social behaviour of birds, this being the subject in which I am especially interested.

Of course the cage here described, having spaces about 1 in. wide between wires, is suitable only for such birds as doves, not for small birds. For smaller birds one would need an electrically welded fabric with narrower spaces and thinner wires. No such fabric is on the market, and the manufacturers do not like to make one, because of the difficulty of welding small wires; but it can be done, for The Toledo Electric Welder Co., of Cincinnati, Ohio, made samples for me, consisting of wires less than 1.1 mm. in diameter welded to cross wires 2 mm. in diameter, at distances of about half an inch. If some firm would weld such a fabric regularly and put it on the market it would be a boon to aviculturists. An electrically welded fabric is wonderfully convenient for making cages: one can cut it into pieces of any size and shape, and even the smallest of these pieces will hold its shape, because wherever two wires cross they are welded solidly to one another.

SPARROW CLUBS.

By ALICE HUTCHINSON.

It is to be hoped that everybody read the admirable article which appeared in the 'Daily Chronicle' of May 30th, written by Lady Warwick, dealing with the share which children are taking in the wholesale destruction of sparrows.

At this time of all times, when the whole world is teeming with horrors, which children of course are bound to hear about and read of, surely it is spreading the fearful disease of cruelty among children to allow them to have a hand in this wholesale murder of birds, for that is what, without doubt, it will end in if children, without judgment, knowledge, and, I'm sorry to say, mercy, are allowed to join in this pitiful task with people who can, if they choose, use judgment and knowledge.

Encouraging children to kill the birds will be the sure undoing of all the good results gained in the last few years from the admirable lessons in natural history and kindness to animals, given in so many country schools. The teachers in some places have an uphill task, for undoubtedly there is an instinct of cruelty in a great many children, an hereditary instinct it may be, and its development or otherwise is almost entirely dependent on parents and others responsible for their bringing up; but as a rule we find that part of their responsibility deplorably neglected. "He was too young to know better" is often the futile excuse of a parent for a child of five or six, or even older, who has committed some hideous piece of cruelty to a defenceless little bit of furred or feathered life!

Surely nothing can be written too strongly on this subject, for we, bird and animal lovers all, know that where there is a free hand given to the destruction of living creatures (sometimes necessary, unfortunately, as in this case of thinning out the sparrows) the human mind is in most cases so constructed that it loses all feeling, discrimination, and mercy when it sees the word "kill" standing out in large letters.

It would be terrible if our dear old England, with its traditions of humanity and its bird-protecting laws, were to be now bereft of its bird life; the charm of the country would be gone, and what has happened on the Continent might be our fate, namely, gardens ruined by insect pests, and then poisoning sprays used on the plants and vegetables, as they do on the vines in Italy and Switzerland, to destroy the blight caused there by the hordes of destructive insects, because the small insectivorous birds have been so wantonly and cruelly killed without restriction. Happily the Swiss are wiser now, as is proved by the many little next-boxes nailed up in the trees to encourage the birds to build in the gardens and round about.

Good authorities on natural history, who have studied the subject scientifically and with observation, tell us that the common house sparrow always feeds its young on insects, and not grain or vegetable matter, and that the adults are champions (proved by eye-witnesses) at clearing off blight. So, even for that reason alone, to try and exterminate him would be an act of short-sighted stupidity, to express it mildly, and this applies also to many other kinds of birds which are victimised in many a garden where they are doing much more good than harm. Their reward is death; not, as it should be, a little share of the fruit they have helped to save.*

AN ELOPEMENT.

By HUBERT D. ASTLEY.

Mrs. Goddard, a member of the Society, tells me of an interesting episode in connection with a hen bullfinch, which she had kept in a cage since its childhood and which was extremely tame, showing great affection to its mistress. In May a wild male bird appeared one day and sat on the cage, which was near the open window, and Mrs. Goddard, thinking it would be kind to allow her favourite to mate and rear a brood, opened the cage door.

The hen bird came out as usual, and presently, beguiled by the vociferous calling of the wild bullfinch in the bushes outside, flew out to join him, but after a little while returned and came into the room on to a shoulder of her mistress. But her wooer was not going to permit any attraction other than himself, and once more returned to the sill of the window, summoning her and beseeching her to come away with him. For a moment it looked as if the little hen

* [We fear that sparrows are terribly destructive to grain, and, moreover, drive away House Martins from their nests. No! we do *not* care for them; but most strongly deprecate the slaughter of blackbirds, song thrushes, etc. If, too, to give an instance, adult humans do not know the difference between a House sparrow and the so-called Hedge sparrow, which is an *Accentor* and entirely an insect-eater, it is not likely that children would discriminate. Goldfinches, amongst other birds, have been disgracefully thinned in numbers, a most useful bird for the farmer, and naturally very fearless in a wild state.—ED.]

could not make up her mind to desert her old home, but the voice of the charmer with his cherry-red breast proved too much, and out she went.

Mrs. Goddard hoped the bullfinches would build their nest in the garden, but she has not seen them since. The male bird evidently thought that too close a proximity to the attractions of the home, where his mate had been a daughter of the house, was risky, and so he took her away.

Perhaps she will return with joy later on, "bringing her sheaves" with her!

SOME EXPERIENCES IN ATTRACTING BIRDS —THE NESTING OF A RED-BREASTED NUTHATCH.

By HENRY S. SHAW, JUNR.

[With acknowledgments and thanks to the Editor of 'Bird-Lore.']

In the fall of 1914 I began feeding the birds at my home in Dover, Massachusetts. There was nothing elaborate or unusual in the apparatus employed, which consisted chiefly of a window-shelf, a weather-cock feeding-house, several wire suet-baskets and a shallow pan for water. The feeding-house and suet-baskets were obtained from the Dover bird-warden. After some months I discontinued the use of the weather-cock house (except during snowstorms), preferring to have the birds come to the shelf, where they could be more easily observed. The suet-holders were put where they could be readily seen from our windows, and three out of four were placed on pitch pines, whose rough bark seemed attractive to Nuthatches and Woodpeckers.

During the winter the shelf was visited most regularly by Chickadees and Red-breasted Nuthatches, with an occasional White-breasted Nuthatch and Junco. In the early spring a number of Purple Finches appeared, and later on Chipping Sparrows were occasionally seen. But the most unexpected visitor was a female Pine Warbler,

which came to the shelf many times each day for two or three weeks. She kept busy while on the shelf picking up small particles of seeds, etc., especially bits of sunflower seeds left by the Purple Finches.

There is nothing of particular interest about the shelf itself except, perhaps, the fact that it is easily removed for cleaning, and has rather high sides, to lessen the likelihood of the contents blowing off. I used sunflower seeds, hemp seeds, crumbs, and sometimes chopped nuts.

At the present time the bark of a pitch pine which stands near the shelf is quite thickly studded with the shells of sunflower seeds which have been wedged into the crevices by White-breasted Nuthatches. It is interesting to watch one of these birds take a sunflower seed from the shelf, fly with it to the tree, and then climb up and down the trunk until a crack in the bark is found which will hold the seed securely. Then the bird, generally head downward, hammers the seed vigorously with its bill and easily extracts the kernel. The little Chickadees also open the sunflower seeds by hammering on them with their bills, and they are able to deliver blows of considerable strength, the seed being held between the bird's feet, either on a small branch or on the edge of the shelf. In the latter case the noise of the pounding can easily be heard in the house, even in an upstairs room. The Purple Finches, on the other hand, can readily crush the seeds with their powerful bills and do not have to resort to any hammering.

The pan of water proved an attraction even in winter, and although the water often froze at night, it was an easy matter to knock out the ice in the morning and refill the pan with water, which would generally remain unfrozen during the day.

Little need be said of the suet, except that of the twelve species of birds seen eating it the Chickadees, Nuthatches, and Downy Woodpeckers were the most plentiful. But it is interesting to note that, for a time in the spring, Pine Warblers, both male and female, came to the suet quite regularly.

The birds which interested me most, I think, were the Red-breasted Nuthatches, not only because of their tameness and quaint manners, but also because I associated them with the New Hamp-

shire forests where I had first become acquainted with this species. These little birds were among my most regular visitors and seemed to be nearly as numerous as the Chickadees. They preferred hemp seeds and chopped nuts at the shelf and seemed especially fond of the suet. They also drank the water frequently, and in general appeared to be so much at home that I often thought how nice it would be if they would stay to nest, instead of leaving for the north in the spring. However, I hardly expected that my wish would come true, because I knew that they were birds of the Canadian zone, and that there were but few records of the species having bred in eastern Massachusetts.

Therefore I was delighted when, on April 10th, I noticed a female Red-breast carrying nesting material into one of my bird-boxes. This is a Berlepsch box, size No. 2, made by the Audubon Bird House Co., of Meriden, N.H. The entrance hole is $1\frac{1}{8}$ in. in diameter, and the box, which is made of yellow birch, is placed in a white birch tree about 7 ft. from the ground. It was put up in the hope of attracting Chickadees.

I did not see the male Nuthatch at work until April 16th, when I observed him carrying shreds of bark which he pulled from the trunks and limbs of red cedars (*Juniperus virginiana*) growing near by. Examination of the box after the nesting season showed that the nest was composed exclusively of this material, the box being filled to within an inch or two of the level of the entrance hole. The male usually left his load at the hole without entering, and I suppose that the material was put in place by the female inside.

On April 23rd, on my return home after a few days' absence, I saw the male fly to the box and feed the female, who stuck her head out of the hole. I supposed that the incubating period had commenced, but on April 27th I saw more nesting material being carried, this time by the female. One of the photographs was taken with the idea of showing the male in the act of feeding the female, but unfortunately her head shows only indistinctly in the hole, while the male moved his head slightly so that the bill is somewhat blurred. I noticed this feeding process quite often during the nesting period, and observed that frequently the female would fly out of the box as soon as she had received the food her mate had brought.

I had heard that the Red-breasted Nuthatch had the habit of surrounding its nesting hole with pitch, so I was on the watch for it, and one morning, when the light was right, I saw that there was a thin layer of pitch close to the hole. At first this layer was so thin and transparent that it was noticeable only when the sun was shining on it at the right angle, but as the nesting season advanced more and more pitch was added, so that before long it could be seen easily even at a considerable distance. Some of the pitch was later melted by the heat of the sun and ran down the front of the box in drops. The pitch was placed at the lower right-hand side of the hole, but there was in addition a thin layer which almost encircled the hole. There was one place, however, at the lower left-hand side of the hole where the pitch was absent, and it was always at this point that the birds clung before entering the hole.

Naturally I hoped I might find some clue to the birds' purpose in putting on the pitch, but in this I was disappointed. Not only did I fail to observe the actual process of applying the pitch, but I was unable to see that its presence affected the movements of the birds in any way, except that they always entered the hole at the place where the pitch was absent. There was nothing to indicate that the pitch would be effective in keeping out enemies or in catching insects which might serve as food. I discussed this matter with Mr. C. J. Maynard, the naturalist, and he suggested that it might be a relic of some ancestral habit, when perhaps the female may have been entirely sealed in during the nesting period. In this connection he pointed out that at the present time there are certain species of Hornbills in Asia and Africa in which the females are plastered up in the nest by the males and are fed by the latter through a small hole. But whatever is the explanation in the case of the Red-breasted Nuthatch, it is a habit on which it would be well to have more information.

Naturally, I was very desirous that the birds should not be in any way disturbed, at least until they had become thoroughly established in their new home. Therefore I made no attempt to see the eggs. But on May 22nd I felt quite sure that the young had hatched, so I cautiously lifted the lid of the box, and looking in, saw a downy blackish mass, in which I could count seven yellow bills.

I was careful to stay near the nest only for a moment, but I discovered afterwards that I need not have been so particular, for the old birds, especially the male, seemed to be quite unconcerned when I approached even to within 10 ft. or so of it.

The parents were now kept busy feeding their young, and I saw them bring winged insects, small green caterpillars, and suet. I was interested to find that the suet apparently formed a considerable proportion of the young birds' diet, and I saw the parents make many trips from the suet-holders to the nest, a distance of some fifty yards. The birds would generally make two or three trips to the suet and then go off for something else.

On June 2nd, Mr. E. H. Forbush, State Ornithologist of Massachusetts, came out to take some photographs. He looked into the nest and could see at least six young birds which seemed to be about ready to fly. They were still in the nest on June 4th, but on the morning of June 5th the box was empty. We discovered some of the young birds in pine trees not far away, and found that they were active and could fly well. In fact they closely resembled the adults except for being lighter in colour.

Several times during the next few days I saw some of the young birds perched close to the suet, being fed with it by one of their parents; and in less than ten days after the young had left the nest I saw two of them picking at it unaided.

The Nuthatches remained in the vicinity until some time in August, but I have not seen them at all during the last six months. It will be interesting to see whether or not any of them return in the spring to nest.

As far as I have yet been able to ascertain, this is the first record of the Red-breasted Nuthatch having nested in a bird-box, and I would be glad to know if any other cases have ever been reported.

I never heard the Nuthatches give any "song" other than their usual nasal notes, but during the breeding season they frequently indulged in low conversational twitterings, which were both pleasing and expressive.

DICK, THE SANDHILL CRANE.

[With acknowledgments to the Editor of 'Bird-Lore.']

The following story told me by Mrs. William Derby, of Garibaldi, Oregon, of a pet Sandhill Crane that she had in Nebraska in 1879, is interesting not only as a realistic picture of the bird's habits in domestication, but for the hints it gives of the play instinct, sense of humour, and general Crane psychology.—FLORENCE MERRIAM BAILEY.

"They ketched him when they was out on the prairie—they'd been out at Swan Lake elk hunting. He was hid in the high grass, and the old crane, he skulked off. They got out and picked him up—he was nothin' but a downy feller. They ketched frogs and cut up and give him. When they got home we'd ben off on a clam hunt, and we fed him on clams till the corn was ripe in the fall.

"He had peeped for four days under a box, and then I took him down fishin'. He just jumped up and down and hollered—seemed as if he laughed. He jumped up and down in the water to wash himself, and then, when he was through, he was ready to leave the country—he went just as hard as he could go toward the corn-field, and me after him. He ran onto a turkey hen, and she knocked him into a bunch of cactus. He turned right 'round and come for me then, peeping as hard as he could peep. I took him up in my arms and carried him back to the house and laid him down on the grass, and he come and sat by me. He never offered to run again—would foller just like a dog.

"That was June. In August we built our sod-house. It took me about five weeks to haul the sod—we had a pair of steers I was breakin'—I was fifteen then. I'd get my sod loaded and Dick would walk along with me. I'd say, 'Dick, let's run, have a race;' and he'd hustle around to get him a grasshopper—native grasshoppers, big fellers. I'd say, 'Now Dick, you ready?' And he'd say, *Peep*. Sometimes he'd kind o' help himself with his wings, tiptoe along, and he'd beat me to the team. Then he'd stick up his head, straight up, and laugh—sounded more like a person than any-

thing else—you could hear him laugh for a mile. But, if I beat him, he didn't have nothin' to say!"

By this time he had grown about five feet, so tall that, as Mrs. Derby explained, "he could stretch up and feel of my face. Go and lay down on the ground and pretend we was asleep, and he'd feel 'round and then come and poke 'round in our heads, as if pickin' himself, and take hold of our eyelids, to make us open our eyes—he never would hurt—and all the time kept up a low talkin'. Then he'd go to sleep—fold up his legs and sit down flat and put his head on his shoulders.

"Along in the summer, a hawk or eagle or something swooped down at him or a chicken, and Dick screamed and the old man went out with a gun, and Dick went right up into the air and sailed 'round, and when the bird dropped he dropped and picked him up and throwed him 'round and laughed and peeped and made all sorts of crane noises.

"He loved a gun—loved to go with the old man a'hunting. If the old man would kill a goose, he'd act as if he was tickled to death. When it began to get cold and there was snow on the ground, he couldn't foller huntin', for they're a tender bird, and we'd have to shut him up. He knew just as well as we did when some of us was gettin' ready to go huntin', and he'd get uneasy." He got so that he would go off before it was time to shut him up. "Then," as she said, "he'd fly up in the air and sail round till he'd find us. If there was snow on the ground, he'd stand on a hill first on one foot and then on the other till he got off a ways, and then he'd fly and light down by us and laugh."

In the fall he had roosted between the creek and the pond, "But," she went on, "when it got too cold for him to do that, I'd ketch him and put him in behind the cows. One cold night I wanted to get him in, bad—I knew it was goin' to freeze—but he said *Peep*, and *Keet, keet*, and got away from me. In the morning he didn't come. I went up with my heart in my mouth—I expected to find him dead. I got up there and he was standing on one leg, the other one froze in the ice. I thought his leg was froze, and I says, 'Dick!' and he says, *Peep*, as pitiful. I broke the ice for him and took him under my arm and hiked for home and stood him in a tub

of snow-water. His leg wasn't froze at all, but it was a long time before he wanted to go to the creek again—he was a willin' barn chicken after that.

“In the spring, when the old man went down to the town, Dick went with me to my traps—I had traps settin' for muskrat, mink, skunk, and wolves. Dick heerd a gun, and thought it was the old man and flew after him. I called him and he answered me—*Peep*—but wouldn't come back. I heerd him light and laugh, and then heerd another shot and didn't hear him laugh no more. It was about a week we didn't see nor hear nothin' of Dick—I'd give him up for dead. Then the old man went up to the pond fishin' one day, and Dick was there, covered with dried blood, and weak. But he wouldn't let him ketch him, so he come home and tell me about it. Of course, I went up as tight as my legs would carry me. He wouldn't let me ketch him, but he followed me home. He was pretty near starved, but he began to pick up, to fat up.

“In about three weeks we moved away, and they wouldn't let me take him—thought he was too weak to foller and we get him in the fall. But after he was gone the feller who shot him before killed him*—and we never saw no more of Dick.”

OBITUARY.

James Howard Symonds.—He who has been styled “a Richard Jefferies of the Camera,” and one of the gentlest of Nature's lovers, to whom the life of a wild bird was sacred, has fallen in the war whilst working a machine gun. We have several times had the privilege of being permitted to reproduce some of his beautiful photographs in our magazine, such as nightingales at their nests, goldfinches on teasel, reed-warblers and other British birds. Photographs taken on the moors, in the thickets, by rivers and ponds, and on thistle-clad wastes.

His success with the kingfishers was very fine. In ‘Country Life’ (June 30th) it is written of him: “He has joined what Sir Thomas Browne called ‘the mighty nations of the dead,’ and is

* [How low down humans are still!—ED.]

numbered in that glorious company of golden youth, the flower of the nation, that this devouring war has seized."

Most of his work was done with an old whole-plate French R.R. lens, and the cameras were home-made to a great extent. He designed an adjustable stand, so as to work his camera at any angle desired, and also a hiding tent. His photographs had always a poetic charm in them.

LIST OF DRAWINGS BY ROLAND GREEN AND HERBERT GOODCHILD FOR SALE.

The following list of original sketches and drawings (of plates which have appeared in the Magazine) are on sale, the proceeds to be given to the Illustration Fund. The sketches may be seen *by appointment* with

Mr. D. SETH-SMITH,

The Zoological Gardens,

Regent's Park, London.

	£	s.	d.
Mot-Mot, by Roland Green (Coloured), size about 12 in. × 8 in.	2	2	0
Pink-crested Touracos, by Roland Green (Coloured), size about 12 in. × 8 in.	2	2	0
Purple-bellied Tanager and Black-chinned Mountain Tanager, by Roland Green (Coloured), size 8½ in. × 6 in.	1	1	0
Sun-bittern in Display, by Roland Green (Uncoloured), size 15 in. × 10½ in.	1	10	0
Malachite Sunbird and Blue and White Flycatcher, by Roland Green (Uncoloured)	0	10	6
Humming-bird in flight (line drawing)	0	5	0
The Mikado Pheasant, cock and hen, by Herbert Goodchild (Coloured)	2	10	0
The Ruddy-headed Goose, by Herbert Goodchild (Coloured)	2	10	0
The Blue-headed Rock-Thrush, by Herbert Goodchild (Coloured)	1	1	0

CORRESPONDENCE.

DEATH OF OLD FRIENDS.

On May 23rd my old hangnest (*Icterus vulgaris*), purchased early in 1899, died. The cold of last winter affected many of my birds and destroyed many flowers, as I was unable to obtain any coke for the last month or two of the snowy weather. The hangnest had been ailing for about two months, being unable to fly up to his perch; but he always welcomed me with the usual sounds of clucking, followed by a rattling b-r-r-r-r. He was not a young bird when I bought him, as the scales on the tarsi showed, and to have kept him in a flight cage for eighteen years is not bad I think.

On June 3rd my last remaining cock Napoleon weaver went the way of all flesh; he had been out of sorts for about a week. He had been in summer plumage all the winter, but at the beginning of May began to moult into the winter plumage, which he had partly assumed when he died. I sent him to the Natural History Museum, as the plumage seemed to me interesting and worth preservation. I believe this is a bird which I purchased in 1900; two or three purchased in 1907 were, I am pretty certain, placed in another aviary, where they eventually died. I still have two females. One, I think, may be *P. franciscana*, but I should have to catch it to be sure; it is rapidly turning black through vigorous old age.

A. G. BUTLER.

WHYDAHs.

SIR,—I was greatly interested in Mr. Shore-Baily's article on the whydahs in the 'Avicultural Magazine' for March, 1917, especially so as I have all the whydahs mentioned, or at least their East African representatives, in my aviaries out here.

There are other whydahs in this country which Mr. Baily ought to try and obtain, such as *Pyromelana xanthomelana*, the yellow-rumped whydah, *Penthetria eques*, the white-winged whydah, *P. hartlaubi*, *Colius passer concolor*, and *C. delamerei*, etc., all of which are easily caught and travel well.

These birds have nested in my runs, but owing to overcrowding have not been able to incubate or rear their young.

On p. 132 Mr. Baily states that Mrs. Annington succeeded in breeding the pintail whydah, *V. principalis*. This is interesting, for in this country *V. principalis* is parasitic—that is, the female lays her eggs in other finches' nests, either one or two eggs in the nest of each host. I have never come across more than two eggs. The eggs are pure white when blown. The most common bird to be victimised is the small waxbill, *Estrilda estrilda massaica*, but I have also taken the eggs or young from the nests of *E. paludicolor*, *E. delamerei*, *E. rhodopyga*, and from the small fire-finch, *Lagonosticta ruberrima*. At this very moment there are two young Pintails being fed just outside my aviaries by a pair of waxbills. In my aviaries these birds have deposited their eggs in a nest of the African sparrow, *Passer rufocinctus*, but this is no doubt due to the fact that no other birds except the sparrow and the pintails were nesting at the same time.

Did Mrs. Annington's birds build a nest of their own, were the eggs laid in another bird's nest, or did Mrs. Annington find them on the floor of the cage and put them under another bird to be incubated?

The young of *V. principalis* do not resemble the adults in any way. They are a uniform hair-brown above, buff below, and with blackish-brown bills.

Yours, etc.,

V. G. L. VAN SOMEREN.

Nairobi,

B. E. Africa;

May 24th, 1917.

THE NIGHTINGALE IN DEVONSHIRE.

DEAR SIR,—My attention has been directed to a remark by Mr. W. E. Teschemaker in his recent article on the nightingale ('Avicultural Magazine,' p. 188). In describing some local haunt of the nightingale in Devonshire, Mr. Teschemaker suggests that the late T. H. Nelson must have mentioned it to me, "for this remote spot was subsequently described in 'British Birds' as the best locality in Devonshire for nightingales." No reference is given by Mr. Teschemaker, and I can only suppose that he refers to some statement in the article on the "Distribution of the Nightingale," by Dr. N. F. Ticehurst and the Rev. F. C. R. Jourdain ('British Birds,' vol. v, pp. 2-21). Dr. Ticehurst, who was responsible for the distribution in Devon, writes me that he cannot now trace the sources of his information (a large number of correspondents contributed notes on the subject), but, as stated in the article, the paragraph under Devon was submitted to Mr. D'Urban, who could not have been ignorant of the facts as stated. In any case, Nelson never mentioned the subject to me.

I do not collect eggs myself, but if anyone gathers from Mr. Teschemaker's statement that I was anxious to journey all the way to Devonshire to collect nightingales at the extreme limit of their range, I do not in the least mind. But, if I may be allowed to say so, I think to put such an uncorroborated story into print when the man concerned is no longer here to defend himself is, to say the least, unfair. I note that the article was written to fill space, but would it not be more fitting to lessen the number of pages rather than to publish what some consider an aspersion on a friend now dead.

Yours faithfully,

H. F. WITHERBY.

326, High Holborn,

London, W.C. 1;

July 9th, 1917.

The above letter has been submitted to me by our Editor, and I have asked him not to withhold it from publication. I am afraid, however, that most of our members will not be able to understand what it is all about, and I am to some extent in the same difficulty myself.

I note that Mr. Witherby suggests that our magazine should be reduced to a smaller compass, but surely the Avicultural Society may be allowed to decide for itself how many pages shall be included in its magazine. Again, if I have written

and our Editor has published a valueless article, surely we are severally responsible to the Society—not to Mr. Witherby. In this connection, however, I note that one of our members claims, in the July number of the ‘Magazine,’ to have read the article “with interest.”

The article in question was written in great haste on a journey, so it would not have been surprising if it had contained some small inaccuracies, but, after reading it again, I can definitely say that, to the best of my recollection, the reminiscences it contains relating to the nightingale are accurate except in one small particular. It might be inferred from one sentence that the late T. H. Nelson came to Devon in quest of nightingale’s eggs, but, as a matter of fact, he came for a change of climate.

I see that Mr. Witherby describes my “story” as “uncorroborated,” but may I ask, on what grounds? It is true that I only introduced two *dramatis personæ* in it, but there was a third person, and if Mr. Witherby will tell us exactly what statements he considers require corroboration, I will ask that third person to say that they are correct.

Mr. Witherby lays stress on the fact that he does not collect eggs, and would not be likely to come to Devonshire to shoot nightingales. These may, of course, be matters of interest to himself, but possibly they may not interest our readers, and in any case they were not referred to in any way whatever in my recent article.

The only allusion of any kind to Mr. Witherby was my remark that I thought Nelson must have mentioned the locality of the nightingale’s nesting site to him. Here also I was not speaking at random. Nelson went on from Devon to London, and I asked him to convey a message to Mr. Witherby relating to the annual looting of the eggs of certain very rare species by a certain collector, in the hope that something might be done to stop it. Nelson subsequently wrote to me that he had given the message, and at the same time asked if I would contribute any data to an article on the distribution of the nightingale, which was to appear shortly in ‘British Birds.’ In the interests of our Devonshire nightingales I did not accept the invitation. If Nelson did not mention the locality to Mr. Witherby he probably did so to Dr. Ticehurst; in any case I feel nearly sure that the information came from him, because the very words I used in describing the locality to him were subsequently reproduced in ‘British Birds.’ There was, of course, no reason why he should not have done so, because I have no recollection of having asked him to regard the information as privileged, and I had been careful to describe the locality only vaguely. As I mentioned, I now never give definite information to any collector, having had some very bitter experiences, including the almost complete destruction of a once flourishing colony of choughs.

One of the oddest statements in an odd letter is that “Mr. D’Urban could not have been ignorant of the locality.” When our readers recollect that one often has no knowledge of the nesting of uncommon species in one’s own immediate vicinity, and then consider the size of Devonshire, they will be able to appraise this suggestion at its proper value. The nightingale is dispersed over a large area of Devon County, but it occurs only sporadically. If Mr. D’Urban had known of this colony of five pairs nesting in a very small area, obviously he would have mentioned it in his book, ‘The Birds of Devonshire,’ but Chudleigh is only mentioned in the latter as one among many sporadic instances of occurrence. If the information

came from Mr. D'Urban, the simple and obvious course was for Mr. Witherby to obtain a statement from Mr. D'Urban to that effect, and I suggest that he might with advantage have done so before penning his letter.

For the past twenty years I have done my best for the cause of our vanishing birds, and I shall continue to do so until the end of the chapter. I have always endeavoured to avoid giving offence, but there seems to be a very sensitive spot in most ornithologists—can it be their consciences?

It is important for us all to remember that our life-work lives after us, and that we must so build that the house we leave remains strong and firm. If we have devoted our lives to the destruction of bird-life, posterity will not forget the fact.

There are scientific ornithologists and Mr. Witherby is one of them, but I have no hesitation in saying that the great majority of his followers are bird-slayers simply and solely for their own amusement: if they are not wise enough to see the writing on the wall now, they probably very soon will do so, for I have talked with many persons on this subject, and am convinced that there is a growing feeling in this country that this senseless, purposeless, and cruel slaughter of our rare birds shall be put an end to.

W. E. TESCHEMAKER.

UPLAND GEESE DYING OFF.

DEAR SIR,—I wonder whether any of your readers can tell me why it is I am unable to rear my young Upland geese. They die off every year from apparently acute diarrhœa. Their bowels literally turn to water, which pour from them when one handles their still warm, dead bodies. They will eat nothing but grass and weeds, and I thought that it is possible that they may be eating something poisonous. I ought to say that they have no shelter whatever, and one day when they were about a week old we had three and a half inches of rain. This may have chilled them. I shall be very much obliged for any information on this subject.

Truly yours,

WM. SHORE-BAILEY.

[The following is, in part, an answer.]

I rear hybrid Upland + ruddy-headed geese every year, and also pure ruddy-headed, keeping them in a coop on a grass run, and giving them duck meal and, later on, a little grain. They run about and eat grass, dandelion leaves, and plantain, etc., and also lawn-mowings. They need fresh supplies of clean water for drinking. When they are about a month old I confine them in a wire run, as they are apt to stray and be lost in long grass or taken by vermin. As a rule they prosper. I never pinion them now, as they remain at home, only flying from one meadow to another in the close proximity of the house.

H. D. ASTLEY.

The Editor has shown me Mr. W. Shore-Bailey's letter, but I am afraid I cannot definitely explain the reason for the goslings dying in this manner. As a rule Upland geese rear their young without any difficulty provided they have an ample supply of short, tender grass, and this, I believe, is about all they require,

although at the Zoological Gardens we provide them with a certain amount of soft food, such as soaked biscuit meal.

I am inclined to think Mr. Shore-Bailey's suggestion that they have access to some poisonous weed must be the correct explanation of the trouble.

I have known these goslings to die from being choked by eating long grass, and I do not at all like cut grass for them, but where they have an opportunity of grazing on short, young grass they should be reared with no difficulty, and their own parents should be allowed to look after them.

D. SETH-SMITH.

FOOD FOR YOUNG CUCKOOS.

DEAR SIR, —I have just caught a fully fledged young cuckoo under the nets over the currant bushes. I do not know if it was eating the fruit or the caterpillars, of which we have a plague. Would you kindly let me know if it is possible to keep this bird in captivity, and, if so, what sort of food I ought to give? Do the young cuckoos stay with us all the winter, and only feed on eggs in the spring?

Yours faithfully,

Oxley Manor,

Wolverhampton;

July 21st, 1917.

EILEEN STAVELEY-HILL.

The following reply has been sent to Mrs. Staveley-Hill :

No doubt the cuckoo was after the caterpillars; it is by nature an insectivorous bird. All young birds, after they have left the nest, are difficult to feed at first; but possibly, with a greedy bird like the cuckoo, a few lively caterpillars or meal-worms mixed in with moistened "Cekto" might induce it to accept the mixture, and then the only trouble would be to satisfy its rapacious appetite. My experience of a young cuckoo was that it was not an interesting pet; it ate to repletion, then went to sleep, and started eating again directly it woke up. Of course a bird like that is most difficult to keep clean in a large cage; it should have a fair-sized aviary to itself, then perhaps it would be more active and eat less. The supposition that cuckoos suck eggs doubtless arose from the fact that the bird lays her eggs on the ground and carries them in her mouth to the nests of the proposed foster-parents; she may also have been seen to remove an egg from a nest in order to make room for her own, but she is not an egg-eater.

A. G. BUTLER.

July 25th, 1917.

[We hope the young cuckoo has been liberated. It is by no means a species that should be kept in a cage.—ED.]

[*Note.*—Mr. Trevor-Battye's article on "Devotion," which appeared in the July number, was printed by the courtesy of the *Hants and Sussex Gazette.*]



THE PURPLE-BELLIED TANAGER
(*CALLISTE CYANOPYGIA*.)

THE BLACK-CHINNED MOUNTAIN TANAGER
(*COMPSOCOMA NOTABILIS*.)

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TWO RARE TANAGERS.

THE PURPLE-BELLIED TANAGER (*Calliste cyanopygia*) AND THE
BLACK-CHINNED MOUNTAIN TANAGER (*Compsocoma notabilis*).

By Dr. A. G. BUTLER.

The illustrations of these beautiful birds have been made from living examples obtained by Mr. Walter Goodfellow and in the splendid collection of our member, Mr. E. J. Brook. Although I have never had the pleasure of seeing them in the flesh, and probably have never more than glanced at their skins when looking over the British Museum series some eleven or twelve years ago, our harassed and much overworked editor has asked me to write an article about them to accompany the plate; and he generously gives me permission to make it as lengthy as I like, which is very nice of him, considering how much I know about these two species!

In his very interesting article, "A Naturalist's Notes in Ecuador," published in our Magazine in 1900 (First Series, vol. vi.), Mr. Goodfellow, speaking of the Tanagers he met with, observes: "They are not frequenters of the dense forests; I do not remember that I found any of the Tanager family to be so, although many of them like to hide about in bushes and some of them always keep near the ground. They all delight in the more open country on the mountain slopes, or in sunny clearings near the forests, and pass their time in the fruit-trees near human dwellings."

Oddly enough, Stolzmann speaks of the species of *Calliste*, or

at any rate most of them, as restricting themselves to the crowns of trees, passing from one tree to another; but he admits that some species prefer the outskirts of the forest and the less lofty scrub.

Calliste cyanopygia was first distinguished from *C. cyaneicollis* by the late Dr. Sclater, who separated it under the MS. name in his collection. It was subsequently described by Berlepsch and Taczanowski, in the 'Proceedings' of the Zoological Society of London for 1883, as a north-western related form of *C. cyaneicollis*; and these authors state that they have seen a fine series in the possession of M. Verreaux of Paris, which proves that the characters are constant and that the bird deserves to be kept separate.

Dr. Sclater ('Cat. Birds, B.M.,' vol. xi, p. 128) remarks that it seems to be sufficiently distinct to be specifically separated, the rump being blue like the head, instead of green. As both species occur in Ecuador, and as I have shown ('Avic. Mag.,' New Series, vol. vi, p. 31) how marvellously the metallic blue-green of females and young males of *C. fastuosa* is replaced in more fully adult males by golden green, that character alone would not have seemed very convincing to me had I been called upon to distinguish the species.

Mr. W. Goodfellow ('Ibis,' 1901, p. 464) says of *C. cyanopygia* that he obtained nine adult males, three young males, and three females at altitudes of from 6000 to 8000 feet. "Found in high trees on the more open parts of the mountain slopes. The females are much duller than the males, and have the under tail-coverts dark green edged with pale greenish-yellow, and, in one skin, with light fawn; they have also less gold on the shoulders. Young males resemble the females, but have brighter golden shoulders."

Does the expression "much duller," applied to the females and young males, mean much bluer, as undoubtedly Dr. Sclater's "less brilliant" does in the case of *C. fastuosa*? If so, while I have no doubt that the Museum authorities are satisfied of the distinctness of *C. cyanopygia* from *C. cyaneicollis*, I think a more satisfactory comparative description of the two forms ought to be published.

Stolzmann, in Taczanowski's 'Ornithology of Peru,' vol. ii, p. 473, describes the eggs of *C. cyaneicollis*, and as they would probably differ little, if at all, from those of *C. cyanopygia*, I herewith append a free translation:

"The eggs are ovate, moderately elongate, with smooth shell, white or slightly yellowish-white, sprinkled with rather numerous violaceous spots, either almost evenly distributed all over; or, more often, few and small on the larger terminal half, but crowded and forming a wide belt close round the broad end, which is sprinkled with tiny spots, but less numerous than at the apex. Length, 19-20; width, 13, 3-14, 1 millimetres."

From the fact that Stolzmann neither describes the nest nor its site, it would seem likely that he did not himself take these eggs.

Unhappily, there do not seem to have been many collectors of the birds of Ecuador who, like Walter Goodfellow, have taken the trouble to record the habits of the birds which they have obtained. I imagine that this deplorable fact is due to the belief that Museum students, some of whom have stigmatized the study of bird life as unscientific, are not interested in obtaining information on the subject; yet I have noticed that these same men never fail to publish with pleasure all facts dealing with the life-history of birds which their collectors send home, so that it is evident that they take some interest in the birds themselves, and not in their skins alone.

Are the species of *Compsocoma* rarer than those of the species of *Calliste*, or are they more solitary in their habits? From what Stolzmann says, it would appear that the forms of *Calliste* move about in small flocks, so that a collector of skins would be able to secure several of any species he might come across, whereas if he came across a single example of *Compsocoma* he might fail to bring it down; yet there might be many examples skulking in the neighbourhood.

Mr. Walter Goodfellow says ('Avic. Mag.,' t.c., p. 90): "We secured one specimen only of the rare *Compsocoma notabilis*. This is a very close ally to the Blue-shouldered Tanager. The arrangement of the colours is exactly the same, but of an altogether richer and intenser hue, and it is also a little longer. Its stomach contained nothing but berries of a hard (and what one would have thought unnourishing) kind."

According to Dr. Sclater, who places these two species at opposite ends of the genus, they differ in colouring as follows:

Compsocoma victorini.

Above olive-green ; lesser wing-coverts purplish-blue ; a broad medial stripe from the vertex to the nape and the body beneath bright yellow. Colombia and Eastern Ecuador.

Compsocoma notabilis.

Above yellowish-olive ; lesser wing-coverts olive ; large nuchal spot yellow ; body below orange-yellow. Western Ecuador.

These differences seem quite satisfactory, but Dr. Sclater emphasizes the black chin of *C. notabilis* as its distinctive character ! I should have thought the description " head black " included the chin. I believe it generally does.

All that Mr. Goodfellow tells us in ' The Ibis ' for 1901 about *C. notabilis* is : " One male, apparently of this species, was obtained on the lower part of the western side of Pichincha, at an altitude of about 7000 feet."

I am afraid that next to nothing is known about the wild life of the species of *Compsocoma* ; so that, with the best intentions, I fear that I cannot make this a lengthy article, as our Editor desires.*

THE STORY OF A BLACK KITE.

By ETHEL F. CHAWNER.

Many years ago I spent some weeks at S. Jean de Luz in the Pyrenees, and towards the end of my stay I was told that someone in the town was very anxious to find a home for a pair of hand-reared, large hawks, and in a weak moment consented to see them. The butcher-boy, who was the go-between, came next morning with the meat for the *pension*, driving two big, brown birds along the pavement before him, and summoned me from *déjeuner* to inspect them and decide if they should come with me to England the following week.

* [The turquoise blue of the head of the Purple-bellied Tanager is most beautiful, and unfortunately appears too greenish in the coloured plate. The under-parts of the Black-chinned Mountain Tanager are also much more brilliant in the living bird.—ED.]

I must own that my first impulse was to refuse them, though fifty centimes apiece could not be called a high price, for they looked the most unprepossessing and deplorable objects imaginable. About the bigness of barn-door fowls and still in immature plumage, dirty, bedraggled, with tail and flight feathers broken to mere stumps, what would be said at home when I sprung them on my family? My acquaintance with hawks was of the slightest; *milan royal* sounded merely ludicrous when applied to these scarecrows, and conveyed nothing to me.

But the butcher-boy was urgent and persistent; doubtless his *pourboire* was at stake, and his orders were to get rid of the birds somehow. He vowed that if I did not take pity on them their death-warrant was signed, that they were *gentilles*, and would be *jolies bêtes* when more *soignées* (they were far from being one or the other at that moment!), and at last I yielded, with many misgivings.

Accordingly, they and I started on our journey a week later. They were packed in a hamper, and I had also eight green tree frogs, two Pyrenean wasps with their nests, various caterpillars, and a praying mantis. The people on the platform glared and scowled at me, for it was the time of the Boer War when the English were unpopular in France; but this had its advantages, as I was left in sole possession of a compartment until just before the train started, when a lady with a small lap-dog took one of the vacant seats.

That was a memorable night! The weather was very hot, and soon the tree-frogs began to croak; this set the dog off, and he barked incessantly, while the hawks screamed and fought in their hamper. My fellow-passenger and I perforce made a compact that if I did not complain of her dog she would turn a deaf ear to my creatures, but it was not surprising that we kept the compartment to ourselves all the way to Paris. By this time I had made up my mind that *two* hawks were more than I could endure, so to the Jardin des Plantes I went as soon as I thought it would be open, and handed over one screamer to the keeper of the birds, who seemed quite pleased to have it. The remaining bird calmed down, and the rest of the journey was performed in silence.

I will pass over the reception my people gave us, merely remarking that their comments were exactly what I had anticipated.

My first care was to encourage my kite to free himself from the swarming vermin which infested him, and I was delighted to see how diligently he bathed and preened himself. The Falconer of the Old Hawking Club came to my help, showed me how to fasten jesses, provided a block, and encouraged me to believe that my "ugly duckling" would presently turn into a "swan." I am afraid that he was the only person who thought so.

The moult—that blessed provision of Nature for righting wrongs done to plumage—was not long in coming, and little by little produced a change for the better. He assumed adult plumage, and one day, after being away from home for a fortnight, coming suddenly round a corner I saw him spread two splendid wings and a broad, slightly forked tail, and realised that I was looking at a beautiful creature. "Taffy," so called from his characteristic habit of "borrowing" handkerchiefs, dusters, and the like ("where the kite breeds, look out for lesser linen"), became a charming pet. Tame and fearless, he could safely be handled, and his poses and attitudes were a joy to see. A very favourite one was "the Church lectern," when he stood on his block with wings half spread, generally after his bath; or he would lie flat on the grass, his wings fully spread, sunning himself until he panted with open beak. He roosted on a low branch of a large ilex, and after jumping off on the wrong side and being left dangling a few times, he learnt how to avoid that most unpleasant experience. He even made a game of it, would let himself go and swing head downward seemingly helpless, somehow right himself with a back somersault, and fly back to the bough. His wild, "shivering" cry was most musical, and as he grew in age he grew in beauty, and acquired that exquisite bloom which is only seen when birds are in the pink of health and condition.

Now and again he escaped through mischance or carelessness in fastening the leash, but he never went far, and everybody knew him, and either brought him home or told his friends where to find him. Probably he could have been trained to fly to hack, but the forest is too thickly wooded to make the experiment worth trying with a valued bird, and "Taffy's" excursions were not encouraged.

The only time he was really upset was when someone took him to see my Eagle Owls. One look was enough for "Taffy," and

he fled screaming. He disdained cats, and dogs usually gave him a wide berth, though I doubt if he would have stood up to one, Kites not being remarkable for courage.

Alas that I should have to write of him in the past tense! He lived six or seven years with us, happy and contented and growing in beauty with every moult. One morning he could not be found, and though a hue-and-cry was raised and diligent search made, it was not until a week later that his mangled remains were found under a thick rhododendron bush. A mangy fox was the murderer, and it was some small comfort to learn that he met his fate the same day from an irate poultry-keeper, among whose birds he was found. "Taffy" has never been replaced, but his memory is still green and held dear by many friends who sincerely mourn the beautiful, gentle creature and miss his engaging ways.

DR. RUSS ON SUNDRY WARBLERS AND OTHER BIRDS.

By DR. E. HOPKINSON, D.S.O.

The following is a translation of a small portion of the 'Lehrbuch der Stuben Vogelpflege, etc.,' which forms the fourth volume (published in 1888) of Dr. Karl Russ' great work on Foreign Birds, 'Die Fremdländischen Stubenvögel,' which remains to date THE Encyclopædia of all things avicultural.

The other three volumes deal exhaustively with different groups of birds, vol. i (1879) containing the "Hard-bills; ii (1881), the Parrots; and iii, the last published (1899), the "Soft-bills"; while in the fourth the author covers the entire field of bird-keeping.

The extract here given is a translation of a few (commencing on p. 470) of the 900 odd closely-printed pages the volume contains. As far as I know they have never previously appeared in English, and as they give an interesting, though perhaps rather idealised, picture of the groups concerned, I do not think that the fact that they are of enemy origin, need even to-day, debar us from any pleasure or information they can give us.

The translation closely follows the original as a whole, though a few verbal alterations have been necessary and a few gaps left, where occur references to other pages of the book or to species which I cannot definitely identify, and I have also, in order to suit the account to English readers, altered the names, giving instead of the German and Latin names of the original, the ordinary English and modern scientific names of the species concerned.

“The WILLOW WREN, whose pretty, gentle, and long-drawn-out song, with falling cadence towards the end, we so often hear in the open in summer, is frequently kept in captivity, and is not so very difficult to meat off or keep in health, . . . especially if allowed to fly loose in the room, but otherwise it has no great value, as it cannot be given rank among the mocking or imitative birds. The WOOD WREN gives us a simple song, opening with a strain which reminds us of that of the Willow Wren, and then ringing out in louder tinkling notes with a low humming accompaniment. . . . The CHIFFCHAFF is our smallest European bird, except the Goldcrest and Wren, but in spite of this is not difficult to meat off and fairly easy to keep, especially loose in a room; its song is a simple but pleasing one, particularly when heard ringing forth in some gloomy wood. BONELLI'S WARBLER (*P. bonellii*), essentially a bird of the mountains, is of but little interest to the bird-fancier; its song is similar to the Wood Wren, but shorter and of lower pitch. Recently the Bohemian bird-dealers have again and again been offering for sale as great rarities specimens of the YELLOW-BROWED WARBLER (*P. superciliosus*), tiny little birds, not much larger than our Goldcrests, which they also somewhat resemble in colour and markings. Their home is in Asia, but they have many times wandered as far as Germany. This little feathered visitor to us is only mentioned here incidentally, as it can have but little interest from the bird-keepers' point of view, being on the one hand but accidentally and very rarely come by, and on the other difficult to keep. The MELODIOUS WARBLER (*Hypolais polyglotta*) is a native of Southern Europe and North-West Africa, which from time to time comes into the bird market from Dalmatia. It is, however, so uncommon that one knows but little of its song and other characteristics. Two other species from the South, the OLIVACEOUS

WARBLER (*Hypolais pallida*) and the OLIVETREE WARBLER (*H. olivetorum*), have, as far as I know, never yet been imported alive; and I suppose we may assume that none of their other allies from Southern Europe or foreign countries would be of any great value as cage-birds, even if by any chance specimens should ever be imported.

"The Sedge and Reed Warblers are plainly coloured, and to most people but little known birds, which vary in size from that of a Willow Wren to nearly as large as a Thrush. Their song, a simple one, can be described as in most cases a pleasing prattling, most industriously delivered, and for this cheery, if inartistic, performance and for their lively and attractive little ways, they will always be beloved, while one species ranks high both as a singer and mocker.

. . . The largest of them all is the GREAT REED WARBLER (*Acrocephalus turdoides*), also known as the "Reed-Thrush," and again by the particularly inapt name of "Reed-Sparrow." It is a ceaseless and untiring singer, but is not often seen in captivity, as it can only occasionally be obtained and is difficult to keep. Others are the much smaller REED WARBLER (*A. streperus*), whose continuous prattling—one can hardly call it singing—one may hear all day long; the similarly coloured Sedge Warbler, whose song consists of a succession of rising and falling whistling notes; the AQUATIC WARBLER (*A. aquaticus*), smallest of all, with a medley of chirps, rattling sounds and agreeable trills for a song; the scarce GRASSHOPPER WARBLER (*Locustella naevia*), whose monotonous long-sustained strain is so uncommonly like the whirr of the large green grasshoppers; and the RIVER WARBLER (*L. fluviatilis*), which has scarcely any song at all, nothing except similar grasshopper-like sounds. None of these can be properly classed as cage-birds, and they therefore can only appeal to a limited class of fanciers. The bird I mentioned above as such a fine singer is the MARSH-WARBLER (*A. palustris*); he is a most desirable cage-bird, as in captivity, when he has got through the winter, he commonly sings from March onwards, but alas! he is most difficult to meat off and get safely through the moult. . . . His song consists of delightfully clear, flute-like notes, similar to those of some of the Willow Warblers, particularly the Icterine, but more melodious and softer, and intermingled with strains, which he has annexed from other

singers, for he is a wonderful mocker. Some foreign species, namely, BLYTH'S REED WARBLER (*A. dumetorum*), of North-East Russia and Asia, SAVI'S WARBLER, from Southern Europe and also Holland, and others occasionally appear in the bird-market, but are of but little actual interest to the ordinary bird-keeper. There are also many other species hitherto entirely unknown as cage-birds, which I can pass over, more particularly as there is little likelihood of any of them being, like the Marsh Warbler, valuable for their song.

The Flycatchers can only be of interest as cage-birds to a few exceptional fanciers, as they are mostly plainly coloured, or, at any rate, not particularly beautiful, although in freedom they are certainly among the most useful of our birds. If one wishes to keep a Flycatcher flying loose in a room to destroy the flies or merely to enjoy its charming ways, its manners will be found excellent, as it will select a stake stuck in a flower-pot or some plant as a perch, whence it will take flights all over the room, but make no mess at all except at this spot. They are, however, in general, frail and delicate, and so come but rarely into the market, while most species are practically impossible to obtain at all. I know no instance of their breeding in confinement, though, of course, it is a common thing for people to entertain and attract these visitors by hanging up nest-boxes for them. Our Common or SPOTTED FLYCATCHER is a little bird of unassuming plumage, with no song beyond a few feeble chirps. The PIED FLYCATCHER is, however, quite a pretty bird, and quite as lively as the last, which is easily tamed and becomes quite confiding, and which sings diligently a song very like that of the Redstart. The WHITE-COLLARED FLYCATCHER (*M. collaris*), which is more especially a native of the south-east, is a prettily marked bird with a loud, changeful tune like the Bluethroat's. As an extraordinary rarity, we are very occasionally offered by the Bohemian bird-dealers the dear little RED-BREASTED FLYCATCHER (*M. parva*), so like the Robin but smaller, whose song consists of a gentle twittering suggestive of the sound of little bells.

Although the WAGTAILS in a state of nature will always be admired and beloved by all for their grace and charm, as cage-birds they have comparatively little value, as they can scarcely be called

singers, and most of them are difficult to keep for any length of time. It is true that they are not difficult to meat off, but afterwards, being such active and excitable little things, they soon pine away even in a really large cage. Many fanciers, for this reason, let them run about the living-room with clipped wings, but here they practically always come to a miserable end; the best plan undoubtedly would be to allow them to fly loose in a bird-room, where they will be found to do fairly well. The PIED or COMMON WAGTAIL is a diligent singer, but its notes are feeble, irregular, and intermixed with its shrill, oft-repeated call; although so common, it is only occasionally offered for sale, being not greatly esteemed as a cage-bird. The more beautiful BLUE-HEADED WAGTAIL (*M. flava*), one of the yellow species, would be much more interesting, but it is delicate and very difficult to meat off, requiring the most constant attention to keep it in health; its song is a little louder and more melodious than that of the foregoing. Of similar habits, etc., to the two already mentioned is the YELLOW WAGTAIL, which is nearly as pretty as the last-named, and whose song resembles the Common Wagtail's. Elsewhere the LARGE PIED WAGTAIL (*M. maderas patensis*) of India and Ceylon is referred to as not being likely to have much value as a cage-bird, even if it were by any chance imported, and of the many other foreign species known, none have hitherto ever been imported alive.

The Chats are of comparatively little value as cage-birds, though there is at least one excellent singer among them. They are among the most difficult birds to meat off, so that they are but rarely offered for sale; and even when accustomed to their food, require constant and most careful attention to keep them in health. An old-caught WHEATEAR, for instance, nearly always dies. To give such a bird the best chance, he should be lodged in a large, roomy thrush-cage furnished with moss and stones. When free, he is a lovely little bird, but in confinement usually presents but a pitiable spectacle. His song is tolerable, though it consists of only a short little strain and a single, disagreeable croak. . . . The STONE-CHAT has but an unpretending song, similar to that of the Wheatear. Of all the numerous foreign species allied to our Chats, there is not one of any interest from our point of view, nor is there the least

likelihood of the fancier obtaining an example of any of them. One of the nearest allies of the Chats, according to most ornithologists, is the DIPPER, which when wild is such a lovely sight in his haunts in some mountain valley, where, especially in the early mornings, the varied chirping and whistling notes of his delightful song, first low then loud, ring out nearly the whole year round. In captivity, on the other hand, unless kept loose in the bird-room, or, better still, in a room by itself, it usually has but a miserable appearance, and, moreover, every Dipper, on account of its unsociability, has to be kept alone; it is therefore distinctly a bird which is best allowed to retain its freedom, the more so, as it is extremely difficult to meat off, and can only be kept alive with the most constant care. Recently there have, on several occasions, been exhibited Dippers which have been taken from the nest and hand-reared; but these show none of the cheery, lively ways of the wild birds, and have no song, or, at any rate, nothing more than a bungling attempt at one. Another species inhabits the Swiss Alps, the mountains of Southern Europe and Lebanon, and others are found in the mountainous parts of Asia and America; but these we may pass over, as they can be of but little interest as cage-birds."

CORDON BLEU—ST. HELENA WAXBILL HYBRIDS.

By A. C. DRELCOURT CAMPBELL.

Knowing how hard it is for our Editor to keep the magazine going now for want of "material," I am writing a short account of my success in rearing the above hybrids this year after several failures last season, and trust it will prove of interest to some of the members at least.

Last season I had in my small aviary, which is, roughly speaking, about $10 \times 8 \times 4$ ft. in size, several pairs of birds and an odd hen Cordon Bleu (this bird, by the way, was bred in the same aviary two years before); in my large aviary I had an odd cock St. Helena Waxbill, so, just as an experiment, I took him out and put him in the small aviary with the Cordon. A few weeks after

they paired off, and, altogether, had two nests of eggs, all of which hatched; but they would feed the young on nothing but seed, and so killed each brood.

This season I turned these two birds into the same small aviary, but put with them only a pair of Zebra Finches and a pair of Diamond Doves, and they started to nest at once. My calculation that the eggs should hatch on June 5th was not far out, as I found them with young on the 6th. I was unable to obtain any live ants' eggs (cocoons) then, only the grubs, which the birds would not touch, and could obtain no meal-worms until Mr. Sanders, of Peckham, came to my rescue, and I am sure that my success is, in a great measure, due to his promptness in sending me some worms at express speed.

On obtaining these meal-worms, I supplied soft food of the usual kind mixed with a plentiful supply of chopped "worms," given fresh twice and frequently three times a day when the weather was very hot; seeding grass was constantly supplied also, but not eaten very much, but used up for enlarging the nest, which was built in a cocoanut *shell* high up in the peak of the roof.

On June 8th the hen started screeching badly and seemed very restless, so I felt certain that some or all of the young were dead, as she did this the year before when they died; so I searched and found a dead bird on the edge of the nest, which the *St. Helena* was trying to brick up with small stones and mortar. Is this sense a provision of Nature or what, I wonder? for this same bird has always done this. I found it the same each time with a young dead bird last year. Some birds forsake when the effluvium gets too bad, others simply throw out the dead youngsters at once, but this *Waxbill* seems to have his own ideas of a fitting burial. Have any other members noticed this peculiarity with *St. Helenas* or any other species?

I examined the defunct, and the reason of death was apparently the old tale again—stuffed with hard, undigested seeds till his poor little life was simply choked out of him. The nest then contained three healthy-looking youngsters, and two eggs which looked fertile.

The next day all seemed quiet, and being a really hot day I

decided to try again for ants' cocoons, and this time was very fortunate in obtaining quite a good supply of both large and small kinds. I hurried back so as to get some into the aviary before roosting-time, and within a few minutes of putting the dish inside the aviary both parents were greedily devouring the eggs, particularly the smaller ones.

The same tale now continues for several days, diet being varied with spiders, blight fly (*not* much relished), chopped meal-worms, ants' eggs, seeding grass, and, in fact, any likely insect or smooth grub that came along, also soaked Indian millet.

On the evening of the 12th both parents were off together for the first time since sitting commenced, and were feeding quietly on Indian millet, with a few ants' eggs picked up every now and again, and it was now for the first time that I began to hope for success.

All seemed to be going on well, so on the 16th I decided to have another look at the nest, as both parents were often off together for long periods, and found it contained four fine youngsters and one egg. The latter I removed with a teaspoon. When the youngsters opened their mouths to be fed, which they did whilst I had the shell in my hand, they showed flesh of the most brilliant light blue on the sides of the mouth.

On the 21st I examined the nest again and found the young getting well feathered; the parents never sit on the nest now.

On the 25th I had the great pleasure of seeing a strange bird in my aviary and great commotion among the rest of the inmates, and the next day there appeared three young birds, whose plumage was chiefly composed of reddish-brown; cheeks, throat, and under breast tinged with blue; beak black; flesh at root of beak brilliant blue; legs flesh colour; eye looked black, but birds too shy for me to get a long enough peep, to be sure, and one bird had a large spot of bright red just over the eye, as if the St. Helena's red eye-streak would develop later. All three birds very strong on the wing, and well feathered all over.

On the 27th the fourth bird appeared, looked like a hen, all red-brown, no other tinge of colour anywhere, also quite strong on the wing, in fact these four birds are the strongest and best feathered young birds I have ever reared.

My meal-worms had now given out, but as ants' cocoons were plentiful I obtained no more.

By July 1st these birds had come along splendidly, one bird in particular, probably the one which appeared out first, having developed the tail motions of his father, started a strong song of his own, quite unlike either of the parents, and took upon himself the responsibility of general sentinel to the aviary, giving warning in a vigorous call very like his father's upon any appearance of danger or sudden noise.

When these four youngsters are asking to be fed it is just like the sound of a lot of our young Titmice asking the same thing, the sound is almost identical; when I found it was my birds making the noise I was very astonished, as I had heard it several days before, but thought it was young Titmice in the orchard trees around, where there are several nests every year: it is slightly ventriloquial and hard to locate.

On July 5th I separated these birds from their parents as they were all feeding themselves well and the old birds seemed to want to commence nesting again.

The hybrids are now all safe and feeding like old birds, all of them have the flirty action of the tail like the *St. Helena's*; their feathering is the loveliest I have yet seen on young birds, so lace-like and such quantities of it they look simply like balls of fluff, with the exception of the tail being too long and not carried at the same angle, they much resemble our common Wren.

Their flight is rapid and graceful, tail jerking from side to side all the time, and they are bright-eyed and most inquisitive and quite tame if no sudden movement is made, coming right up to the wires to see you and altogether delightful in their demureness.

Should any fellow-member after reading this feel they would like to purchase some of these birds, I should like to add that I have sold two and will not part with the other two, but should I be successful again and rear another nest this season I might be able to spare one or two.

In addition to these hybrids I have been very successful with Diamond Doves, Zebra Finches, and Long-tailed Grass Finches, but my *Ruficandas* have failed altogether so far.

I am hoping that this dry yarn of mine will be of some assistance to a fellow-member who may have a few odd birds and a small aviary to spare and so help him or her to the success which has at last attended my efforts.

P.S.—These birds have now a second brood of three flying, and are nesting again for the third time.



A BABY SHAMAH.

Photo. by G. E. Low.

BIRD LIFE AS AFFECTED BY DROUGHT.*

By CHARLES BARNARD.

Under this heading I would like to mention a few instances that have come under my notice, showing how certain forms of bird-life can be driven away from, or exterminated in, certain districts during times of severe drought, and also showing how birds can become a medium of conveying seeds of plants, or grasses, possibly of an injurious nature, from one district to another, in other ways than by the usually accepted one of eating and evacuating.

Referring particularly to the district round about Coomooboolaroo, Central Queensland, I can mention the case of the Beautiful Parrot (*Psephotus pulcherrimus*). Previous to the terrible drought of 1902 it was not very uncommon to see a pair of these birds when out mustering on the run, and on two occasions nests were found, but since that year not a single specimen has been seen.

About the year 1882, when on a collecting trip to Fairfield, a station about seventy miles south of Coomooboolaroo, many of these birds were seen, and several sets of eggs taken.

Since 1902 I have frequently asked the people living at Fairfield to keep a look-out for the birds, but they report that none have been seen. I have also been in the vicinity myself, but saw no birds. The reason of their disappearance is not hard to discover. For three years previous to the climax of the drought in 1902 there had been no wet season, and very little grass grew, consequently there was little seed; then the worst year came on, in which no grass grew, so that the birds could not find a living, and either perished or migrated. As there was more grass on the coastal country, the latter is possible, but if so, it is strange that they have not found their way back to their original haunts.

Then we have the case of the Scarlet-backed Malurus (*M. melanocephalus*). These little birds were always numerous in the long grass, but after that drought not one was seen on the run for at least three years, but since then an odd little flock has been seen. It is possible that as the grass became scarce inland they worked their way towards the coast, where the grass was longer.

* From 'The Emu,' with acknowledgments to the Editor.

The year after the drought I had occasion to be on the coast country, and noticed numbers of *Malurus* in the long grass.

During the year of drought many of the far-western birds came into our district, notably the Ground Graucalus (*Pteropodocys phasianella*), Western Miner (*Myzantha flavigula*), and Cockatoo-Parrot.

The Bustard, or Plain Turkey, is rarely seen in our district, but when a bad season occurs in the West, they work in towards the coast, and last winter I shot a female weighing 17 lb. When plucking the feathers off I was surprised to find spear grass seed sticking thickly into the skin, principally round the base of the neck, but more or less all over the body, many of the "spears" being completely embedded in the flesh. Now, hundreds of these birds would find their way back to the Western plains, and eventually drop the dreaded spear grass in the sheep country.

In 1903 I was up towards the Gulf country, and was told that the Bustards were driven in towards the Gulf by the drought the previous year, and that hundreds died from drinking the salt water in the salt-pans.

The poor Laughing Jackass (*Dacelo gigas*) had a bad time in that year, and numbers died. Several times three or four were seen lying under the night-roost, and for some years after the drought it was rare to hear a "corrobboree" in the early morning. Now, however, they have become plentiful again, and the "bushman's clock" chimes regularly every morning. Magpies became so weak that they could not fly, and no doubt many died. Also many of the smaller birds died.

PHEASANTS.

By A. R. WILLIAMS.

I.

At six o'clock on a fine August morning I opened my bedroom window and looked out. The sun was not yet clear of the trees on top of the Downs, but was rapidly changing the sky from blue to white, increasingly gold and red eastward. There was a sharp touch in the air, summer though it was. A cock pheasant

stepped across the road from our front hedge, right before the window, with his back towards me. The road was too much in shadow to reveal the brilliance of his burnished head and rich tawny body colouring, though the white ring round his neck was plainly visible. He walked slowly, with a gait like a miniature peacock, but more daintily. As if conscious of pre-eminence among birds, he turned his head proudly to left and right with a graceful arch of the neck. At the hedge he inclined his head, there was a wave of the long-barred brown tail feathers, and the pheasant disappeared into the shadows and growths of the hedge-bottom. I withdrew from the window to finish dressing.

Hearing footsteps a few minutes later I went to the window again. Coming along the road was the farmer's son, Master Robert, carrying a gun on his arm, his alert wire-haired terrier trotting a couple of yards in front, both keenly searching for game. Across the top of the sixty-acre field a dark speck ran quickly into the hedge. Mr. Robert stood for a moment, looked round, then struck straight across the field to the top corner. I listened, but heard no report of a gun. Half an hour later Robert came back empty-handed.

II.

Late in the afternoon of a bright October day I came through the rye-field with a cart. Swinging open the gate leading into the dairy meadow, I stood for a moment looking across its broad expanse of sward. The level rays of the setting sun cast long shadows reaching halfway across the mead. On the far hedge, under the great elms, scarlet haws shone in the sunlight, the maples were golden, and the hedgerows purple and brown. Away to my left a cock-pheasant ran quickly towards the corner. His bluish-glossy head looked black, his body was the darkest brown, and the white ring round his neck was all but indistinguishable, but the plump, yet handsome, wedge-shaped body was unmistakable. I hurried back through the gateway in time to see the bird disappear between two wheat-ricks.

III.

The seventy-acre field, recently under barley, now full of clover, adjoined the Downs for the greater part of its distance across

the top, the stretch being completed by a plantation of larch and ash and hazel saplings. Going up under the hedge with a load of hurdles to get to the adjacent sheep-field, we surprised three pheasants, a cock and two hens. We did not see them for long. They were in the top corner. When they heard the waggon the two hens scuttled away through a gap in the hedge. The cock stood for a moment with his back towards us, his head turned to the right, the embodiment of watchful caution, then he followed his wives. On our return journey we saw several pheasants feeding close to the top hedge, but a long way from us, only near enough to be recognised as pheasants.

At the second journey up we saw a cock pheasant and three hens wandering along in front of us near to the hedge. They had not yet noticed us, and I jumped through a gap in the hedge, intending to get ahead of them, and then come through the gateway to meet them. I walked quickly and as quietly as I could, and reckoned that I should be level with them at the group of ash poles. I got to the ash saplings, and was about to make a *détour* out into the field for the purpose of not startling the birds, when a sandy-brown patch of feathers crept through the hedge immediately ahead. She turned her head, caught sight of me, darted back, and disappeared through the gap whence she had come. A moment later I heard the beat of strong wings forcing heavy bodies upwards, and four pheasants soared high over the hedge and away to the plantation. It is an interesting speculation whether the hen pheasant gave warning to the others or not, or they may have heard me, or more likely, have been alarmed by the oncoming waggon and team.

During a subsequent journey in the afternoon we were more fortunate. A cock and hen pheasant were feeding in the clover a short distance to our left. They ignored our presence, and went on searching in the long clover. By the light of the afternoon sun we could see the cock bird in all his glory, resplendent in sheen of bluish-green glossy head and neck, bounded by a pure white ring below, chestnut-brown plumage, almost bright enough under the wings to be called red, and the graceful, tremulous tail barred black on a reddish ground. Such vivid colouring gives the bird an exotic appearance, yet fits in well with an autumnal landscape.

IV.

The end of November, and winter has laid its first touches on the countryside. A keen hoarfrost during the night was followed by a bright morning, turning later to snow as the north-east wind brought up the grey clouds. As we drove along the high road it was snowing heavily from a leaden sky. In the village doors and windows were closed, scarcely anyone was about, and the few whose work compelled them to be outdoors were muffled up to the eyes, the farm-hands in plentiful sacks. Hedges were bare, trees stood out gaunt black skeletons against the sky. Blackbirds and sparrows with puffed-out feathers hopped disconsolately about the roadway. The generally numerous rooks were represented by a few individuals flying swiftly through the air, not turning, pausing, nor calling. Only the plovers uttered their melancholy cries from the wet pastures, as they always do. The landscape faded away into invisibility behind a curtain of snow and mist, and the dark weed-bedded river flowed past with silent speed. We drew our coats round us and urged the horse on faster. Rounding the bend beyond the village we saw ahead a water-meadow containing the dead and blackened remains of a plentiful crop of thistles and docks. On our left, across the river, were some huge elms at the bottom of a sloping meadow. Suddenly abreast of us sounded the beat of strong pinions, a dark shape rose high between two closely growing trees, and a cock pheasant flew nearly overhead at tremendous speed, neck outstretched, long tapering tail trailing straight and smooth behind him, wings meeting above and below his body in his eager and strenuous effort. The wing-beats were incredibly quick for such a big bird, as was his flight. In the diffused light and his elevated position the colouring was reduced to one dead level, almost black. He sped away and disappeared across the meadows towards a copse.

V.

It was not completely dark as I came across the meadow and made for the gap under the big elm-tree, but the light was so diminished that objects looked dark and huge and shapeless out of space. Against the skyline on the headland a cow looked as large as an elephant, and the tops of distant trees were great cones and

pyramids. In the rapidly gathering darkness everything was eerie and illusive. Plovers swept in long curves overhead and skimmed across the surface of the marshy land, crying plaintively. A black-bird flew out of the hedge as I approached, and went off calling "ching, ching," as if annoyed. Going through the gap, I trod on a rotten stick, which cracked loudly underfoot. A quick rustling, brushing noise sounded in the branches, there was a clap of wings and the rush and beat of a cock pheasant's powerful vanes forcing the bird along at top speed. The sound of a pheasant's wing-action is unmistakable, even though the bird is invisible. It rapidly died away through a lessening vibration to silence, broken only by the whisper of the stream and the cries of the peewits.

VI.

The powerful wing-action of the pheasant is marvellous. Approaching the plantation, we hear the resonant crow of the cock bird, and perhaps see brown bodies vanish into the undergrowth. Going along the cart-track, whose ruts are filled with blackening beech-leaves, we surprise an occasional rabbit, which sits a moment, then slips away. A squirrel darts with quick jerks from branch to branch, and various small birds flit across the way. Brown withered leaves still hang on beech and oak saplings, berries gleam here and there, larches are golden-brown, evergreens shine with a richer green, coarse grasses and ground-ivy flourish, and fungi are plentiful. Ahead rises a little close-growing group of beeches. At their foot busy among the carpet of leaves, is a cock pheasant, his ruddy black-barred tail vibrating jerkily with his slight movements. We stand still, but too late; the rustle of leaves is detected by the bird. He raises his handsome head, turns his neck, his eyes gleam like a jewel. Next moment he utters a loud warning call, gives a sudden jerk, and rises vertically—"rockets"—through the bare branches. The output of energy to rise thus such a distance must be enormous. The hitherto almost silent wood echoes to the dash and flap of wings meeting above and below his body at a speed too fast for eyes to follow. As a display of flying ability, the rocketing of the pheasant is equalled only by the long-distance gliding of gulls, the autumnal evolutions of rooks, or the day-long busyness of swallows. But the

methods and extent of birds' flights are always interesting and wonderful, and the wing-feats of migrants must not be forgotten.

The cock pheasant's upward rush is over in a few seconds; he is out of sight above the tree-tops, and the wood resumes its normal quietness, broken at intervals by slight sounds which are magnified among the trees.

VII.

A chill biting wind blows from the east, penetrating the thickest clothing, and making one shiver even when wearing winter garments, overcoat, and gloves. The sky is a uniform leaden grey. From it falls a drizzling rain with flakes of snow. It is cold enough for frost, but the atmosphere is too damp to allow of freezing. Across fifty acres of swedes the sleet drives with soaking persistence, and the big leaves throw water on legs and feet. From the plantation beyond the swede-field a small column of smoke arises, indicating that the woodman too feels the cold, and is trying to warm himself and boil a kettleful of water for breakfast.

Disturbed by the bang of the gate and the noise of the horse and cart, a huge flock of rooks and jackdaws, with the inevitable retinue of starlings, rose from the middle of the field, wheeled to the left, described a long curve towards the copse, then away with loud caws and cries to the right, scattering into the next field. A moment later a dark object darted out of the wood and flew straight as an arrow towards me, calling loudly on one note as if alarmed or annoyed. The wings vibrated with great force and rapidity, the bird was within twenty yards of me, then swerved to my left. Stopping the quick pulsing wing-beats, and holding them outstretched stiff and still, it glided swiftly in a downward slant towards the hedge. For a few seconds I had a perfect silhouette of him, as with head craned forward, neck straight, boat-shaped body balanced by the legs and taut wings, and long tapering tail sloping slightly upwards he steered for the hedge. He ceased calling, seemed to slacken his rigid frame, drew himself together, and alighted at the foot of the hedgerow. It was a cock pheasant. In the poor light his head appeared black, neck-ring grey, and body dark brown. He stood motionless, the model of alertness. Then my horse tossed his head and stamped with a hind foot. The

pheasant lowered his head, made a sudden little run forward, and vanished through the hedge.

VIII.

In rural districts with plenty of cover pheasants are common, yet elusive. No matter how numerous they are, one does not see many at a time, nor for long. They pass quickly across the scene, and for the moment are the most notable feature in it, beautiful in shape and colouring, alert in their movements, swift and graceful when running, powerful on the wing. They run with more ease than most birds, excelled only by the landrail. They run at top speed through the stubbles or across meadows, feed slowly and deliberately in the clover, step through gaps with a whisk of their long tails, or fly low in a slanting direction into the coverts. One surprises them picking up corn round the ricks, and they sail with long, sweeping flight into the woods. Early in the morning they walk leisurely across the high road with a glance right and left, or wander along the waggon-track, examining the remains dropped from loaded carts and waggons. They rocket violently up and over the tops of the highest trees, or slip across the woodland tracks and out of sight. Working about a farm or strolling in the woods, one sees pheasants, the cock pheasants so much more prominent than the hens; sees them for a few seconds or perhaps minutes, and then they are gone. When invisible they can be heard, uttering loud, metallic crows, warning, defiant, or triumphant; at other times softer and deeper notes, expressive of contentment or well-fed satisfaction.

OBSERVATIONS FROM THE FERN-TREE GULLY DISTRICT (VIC.).*

By R. T. LITTLEJOHNS, R.A.O.U., and S. A. LAWRENCE, R.A.O.U.

For the last two or three seasons we have carried out our modest observations with the comfort of a house at Upper Fern-tree Gully as headquarters. Here we have used our limited opportunities in an endeavour to secure photographs and reliable information of

* From 'The Emu,' with acknowledgments to the Editor.

the local birds in their natural surroundings. We always make it our aim to refrain from injuring our subjects in any way, and, probably for that reason, know very little of sub-species. We are more bent on obtaining photographs such as that of the Yellow Robin than on seeking new forms. It appears to us that the bird in question would far rather be recorded by photography than have the honour of position as a type specimen.

Our experience has satisfied us that results can be obtained even with an inexpensive outfit. Some of our first photographs were obtained with an ordinary box camera of the cheapest variety. Much time and energy, however, we have always found it necessary to spend. During the season 1915-16 practically every week-end from June to January was spent at Fern-tree Gully. For the early part of this time our attention was confined almost entirely to the Lyre-Bird (*Menura victoriæ*), with which we were, and are, anxious to try conclusions. Several week-ends of strenuous hunting through damp gullies failed to disclose a nest. The time was not wasted, however, as on two or three occasions we were able to observe from very close quarters. The first occasion was at Belgrave, when we located a pair feeding a few yards from a tourist track. By carefully stepping from log to log we approached close enough to obtain a glimpse of the male as he paraded to and fro on a fallen tree-fern. For some time he treated us to imitations of various bird-calls, including those of the Laughing Jackass, Coachwhip-Bird, and many others. Eventually our presence became known, and the pair began to work slowly down the gully. A silent chase on hands and knees brought us more than once to within a few feet of them when they paused to feed.

A few weeks later we spent the whole of one damp, foggy morning watching a male bird we had often heard in the Fern-tree Gully Reserve. We had located a fresh dancing-mound the week before, and made our way carefully to this spot. Unfortunately for our proposed attempt at photography, the bird was already on the mound when we arrived. We were fully compensated, however, by a fine performance lasting about half an hour, and at a distance of about six feet. We approached by crawling slowly forward while the bird was occupied with his performance, and lying motionless

immediately he paused to listen for signs of possible danger. This he did frequently, and our progress became slow and tedious. Eventually we reached a position separated from the mound only by a thin screen of bracken. Then, although uncomfortably wet and cramped, we spent one of the most interesting half-hours of observation in our experience. Almost perfect imitations of many bird-calls followed each other in quick succession, that of the Jackass being most oft repeated and perhaps least perfect—slightly faulty always towards the finish. After this lengthy performance the bird walked slowly into the dense bracken at the far side of the mound, and, to our delight, turned again in our direction, passing unconcernedly within four feet of where we lay, unconcealed and almost afraid to breathe. He then disappeared again into the bracken. The movement of the fern marked his course until he presently reappeared on a fallen tree about 30 feet distant. Here he proceeded to preen himself and dry his plumage in the morning sunshine, now struggling through the thick fog. His toilet performed, he glided silently down the hill and out of sight. We had now little hope of his returning in a reasonable time, but remained on the off-chance for an hour or two with the camera carefully concealed and focussed on the mound. At the end of that time we gave it up, but are still confident that a picture could, with patience, be obtained in this way.

In a gully at Ferny Creek, a little further afield, we located a pair of Pink-breasted Robins (*Erythrodryas rhodinogaster*), but, owing to being occupied at the nest of a Pilot-Bird (*Pycnoptilus floccosus*), we were unable to spend sufficient time to discover the nest, which was undoubtedly somewhere in the vicinity. In the same gully, on another occasion, we were photographing under difficulties at the nest of a Rufous Fantail (*Rhipidura rufifrons*), when the appearance of a male Leaden Flycatcher (*Myiagra plumbea*), a bird new to us, drove all thought of the Fantail out of our minds. A long search, however, failed to disclose any nest.

In the more open country towards Lower Fern-tree Gully we have given considerable attention to the Rufous and Yellow Whistlers, and have succeeded in securing photographs of both species. We have also, on one occasion, come across the rarer Olivaceous Whistler, but were not fortunate enough to find a nest.

However, we are often quite content to spend considerable time with some of the birds which are more common, and therefore give more opportunities for choosing suitable circumstances for photography. Probably the most frequent victim of our enthusiasm is the Yellow-breasted Robin (*Eopsaltria australis*), and our negatives of this bird number thirty or more. One of our chief aims, when time and circumstances allow, is to demonstrate the remarkable trustfulness exhibited by many of the subjects. The nest contained newly-hatched young, and the parent bird took little notice when disturbed, or even placed by hand in a suitable position. Several other species, including the Jackass, Pilot-Bird, Flame-breasted Robin, Mistletoe-Bird, Rufous and Yellow Whistlers, Buff-rumped and Striated Tits, Blue Wren, White-shafted and Rufous Fantails, and Pardalotes, we have found quite as trustful after a little coaxing. Unfortunately, we have not been able to make a record of every case.

REPORT OF THE COUNCIL MEETING.

The summer Council Meeting was held on July 5th by the kind permission of the Zoological Society at their offices in Regent's Park.

There were present: Mr. Trevor-Battye (chairman), the Hon. Mrs. Bourke, Miss Chawner, the Marquis of Tavistock, Mr. Astley, Mr. Ezra, Mr. D. Seth-Smith, Mr. Pocock, Dr. Amsler, Miss Alderson (Hon. Sec.).

Letters of regret for non-attendance were received from Canon Dutton, Dr. Butler, and Mr. Willford.

The minutes of the last meeting were read and confirmed. Mr. Astley having sent in his resignation as Editor, and Mr. Thomasset (on joining the Army) as Treasurer, Dr. Graham Renshaw was elected to fill the former post.

It was proposed that the posts of Editor and Treasurer be combined and filled by one member. Dr. Renshaw, however, declined to act as treasurer, and Mr. Ezra was appointed to fill the vacancy.

The Hon. Treasurer's report was found to be quite satisfactory, there being a balance in hand.

Mr. Selater and Mr. St. Quintin retired as members of the Council (see Rule 8), and were appointed Auditor and Scrutineer. Mr. Astley and Mr. Thomasset were elected as members of the Council, and a vote of thanks was passed to both for their valuable services rendered.

The date of the winter meeting was fixed for the end of February, the exact date to be given later.

A vote of regret was passed on the death—in action—of Major Perreau. The deceased officer had been a valued member for nearly fourteen years.

The meeting closed with the usual votes of thanks.

NOTE.—Mr. Astley, to whom the very grateful thanks of the Society are due for continuing the Editorship through a very trying time, retires at the end of the present year (October). Dr. Graham Renshaw, who will then become Editor, is the author of several works on Natural History, an extensive lecturer on Zoology in the University of Manchester, and reviewer in Zoology for the ‘*Medical Chronicle*,’ and has been a member of the Avicultural Society for seven years.

We are sure all members will give Dr. Renshaw their good wishes on his appointment to the post of Editor.

CORRESPONDENCE.

THE NIGHTINGALE IN DEVONSHIRE.

DEAR SIR,—I hope I may be allowed to thank Mr. Teschemaker for having now made it clear that he did not accuse Nelson of having betrayed a confidence. Mr. Teschemaker also gives the corroboration which, as I stated in my “odd” letter, was lacking in the article. I have no recollection of the conversation with Nelson, but I have no reason to doubt that Mr. Teschemaker’s present statement (p. 296) is correct.

In his original article, after explaining how carefully he kept this locality secret, Mr. Teschemaker said (p. 188) “nevertheless, so incorrigible is the collector’s habit of passing on information that even the above vague description

very shortly afterwards found its way into print." The meaning conveyed to me and others was that Nelson, having received this information in confidence, had put it into print through me. This was the whole point of my letter, and the other questions raised by Mr. Teschemaker, who has misunderstood me as I misunderstood him, are not worth pursuing, except that I might point out that the last sentence* in my letter has qualifications which seem to have been overlooked by Mr. Teschemaker.

326, High Holborn,
London, W.C. 1;

August 13th, 1917.

Yours faithfully,

H. F. WITHERBY.

Editor of 'British Birds.'

* [We fear we do not agree. The article was *not* written to fill space, and advice is certainly tendered as to our Magazine being reduced in compass. The remark as to filling up space is surely intended for sarcasm.—ED.]

YELLOW-RUMPED TANAGERS.

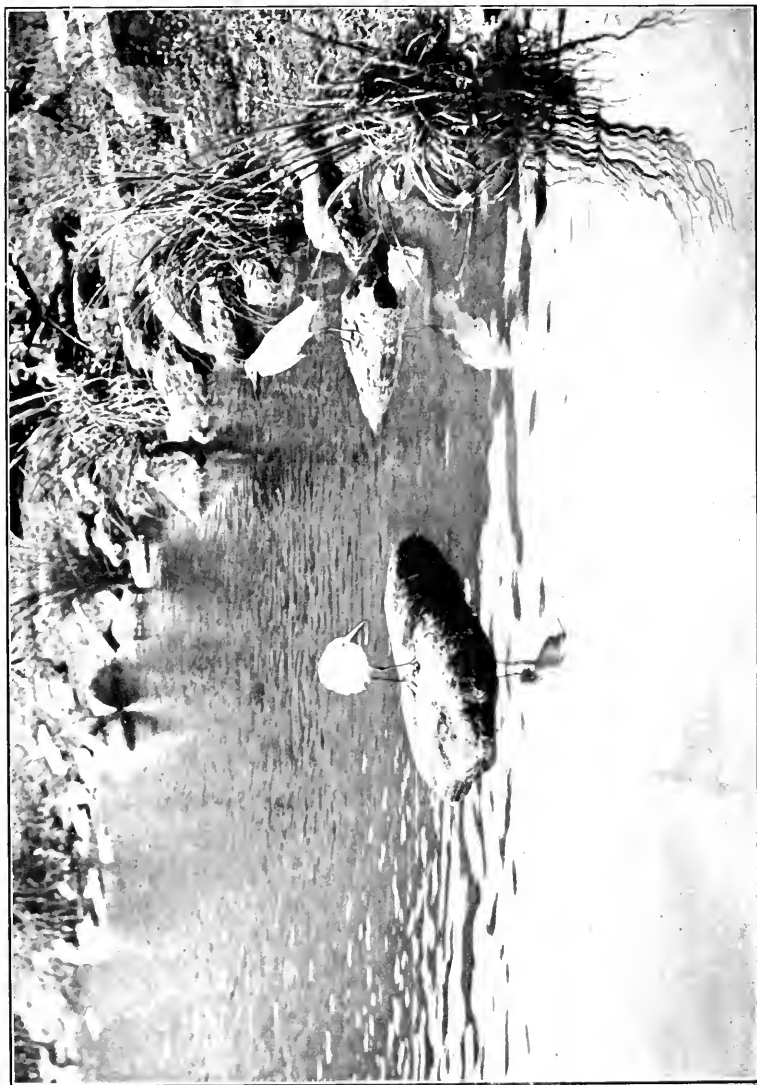
Mr. Brook writes from Hoddam Castle:

I have had no luck with the Tanagers (*Rhamphocelus icteronotus*) that were nesting. The young disappeared, and I am sure the old birds ate them. The nests built were made of fine grass and had a slight lining of cow-hair and were deep and substantial. The eggs were sky blue, blotched with dark brown on the larger end, and were elongated in shape.



FEMALE SHAMAH AND NESTLING.

Photo. by G. E. Low.



LESSER EGRETS AT BRINSOP COURT.

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OCTOBER, 1917.

MY EGRETS.

By HUBERT D. ASTLEY.

They arrived in July, 1916, looking decidedly the worse for wear, their wing feathers broken, their mien dejected. Two Lesser white egrets from South America (*Ardea gazetta*, I presume); and with them were two small dark grey egrets, one of which was a corpse when the box was opened, and the other one following suit a few hours afterwards. Horrible! The little white ones were allowed to walk out on the verge of the ponds, for seeing they were very tame, I felt they would not leave the water's edge.

They rapidly improved, putting on flesh and washing off some of the dirt with which their feathers were stained. They managed to reach a small island situated in the centre of a small and shallow pond, where they roosted on willow boughs overhanging the water, and about a foot from the surface. And thus, until cold autumnal days, when I caught them to put them of a night in an inner apartment of the aviary, which is used as a hospital, where hot pipes warm the air in the winter. On mild days—there were not many—I turned the egrets out for a few hours, but before dusk they always came back, and if the outer door of the aviary was closed, they stood outside at the top of a flight of four steps, waiting to be let in. Then they walked sedately down the passage, past two other compartments, and into their own bedroom. All the summer they had fish—dace caught in the moat and ponds—but with the winter the supply ceased, and I had to give them raw rabbit.

For some hours they absolutely refused to touch it, hungry as they were, but on finding no fish was forthcoming, they reluctantly took to the rabbit flesh, and in a day or two seemed to have forgotten the taste of fish.

As the winter wore on, abating nothing of its severity and bitter cold, the egrets began to show signs of a lack of robustness, so that I was glad indeed when I was able in the middle of April to give them their liberty. Yet still for a week or so they returned to their winter quarters for the night, having to walk along a paved path, through a wicket oak gate, and across a bit of lawn to the aviary door.

Then came an evening when they were not there. Fine weather had come. They were back on the willow boughs above the water, side by side; and how they rejoiced when a fish diet was once more set before them.

Then in May they moulted, and by the middle of June not only was their plumage glistening in snowy whiteness, "aigrettes," crest, and all, but their feet became bright yellow, as well as the skin about the nostrils and as far as the eyes. The legs are greenish. And *then* they could fly! Would they fly far? was my somewhat anxious thought.

Their tameness is wonderful, and sometimes they have perched on a window-sill of an open window, peering into the room if they discovered I was there.

Every morning at 7.30 they stand outside the front door, awaiting me for their breakfast. If I look out to tell them I will fetch it, and then go indoors to a bath-room on the ground-floor, where I keep a supply of live fish, the egrets immediately run off and take up their position just under the window of the bath-room.

If they see me on a stone bridge which spans the moat with a fishing-rod in my hand, they fly on to the parapet and sit close to me, eagerly watching for a catch of fish.

When I pull out the line they both stretch out their necks. If I have missed the fish, they stand quiet; but if they see a fish on the hook, they are immediately excited, and, rushing forward, seize it directly I have it free. Dace of five inches in length they can swallow whole if their appetite is keen, after which bulky mouthful



LESSER EGRETS.

Photo. by W. H. Bustin

Adlard & Son & West Newman, Ltd.

they stand with stiffened neck, the fish bulging out the skin, until after a few minutes it slides into their interiors !

On a stone wall which encloses a pool of water-lilies there are vases in which grow ancient dwarf Japanese trees (one is two hundred years old), and on these the egrets often perch. Anyone might well take them at such moments for Japanese carved ivory. There are two things they object to. If they see me with a fish-net in my hand they fly off, although I have never used it for catching them ; and if my black retriever walks near them they immediately take wing ; yet several Pekingese dogs can go right up to them.

Up to the middle of August they never flew much, but after that they sometimes perched upon the ridge of the barn roofs, from which elevation they would at once descend with light and silent wings when they heard my whistle. I wonder whether they were searching for me when I was absent from home for six days in the beginning of September, for on my return I was told that on three consecutive mornings they had taken long flights over the surrounding wooded hills, and had soared up and up until they looked "no larger than bumble-bees." This they had done on the morning of my return, yet they ceased these charming flights directly they found me home again. Alarming, because it was thought they were meditating migration. Certainly they seemed delighted to see me, so let us hope they will not be so foolish as to leave their happy home.

I have never had pets more fascinating or more intelligent, and I may well believe that egrets at full liberty in an English garden are not to be met with elsewhere in the British Isles.

I have stood and watched them as they waded, sometimes with the water touching their breasts, when they have a peculiar mode of stirring up aquatic insects or small fish. One foot is stretched out in front, the whole leg and foot rapidly trembling, whilst the bird looks eagerly to see whether anything has stirred from the mud. Then the other leg is used. The tremolo movement is very quaint and graceful.

I have seen these little herons, as they waded, reach a spot where a periwinkle plant hung into the water. One of the egrets, instead of skirting round it, stretched out its leg, trembled its foot

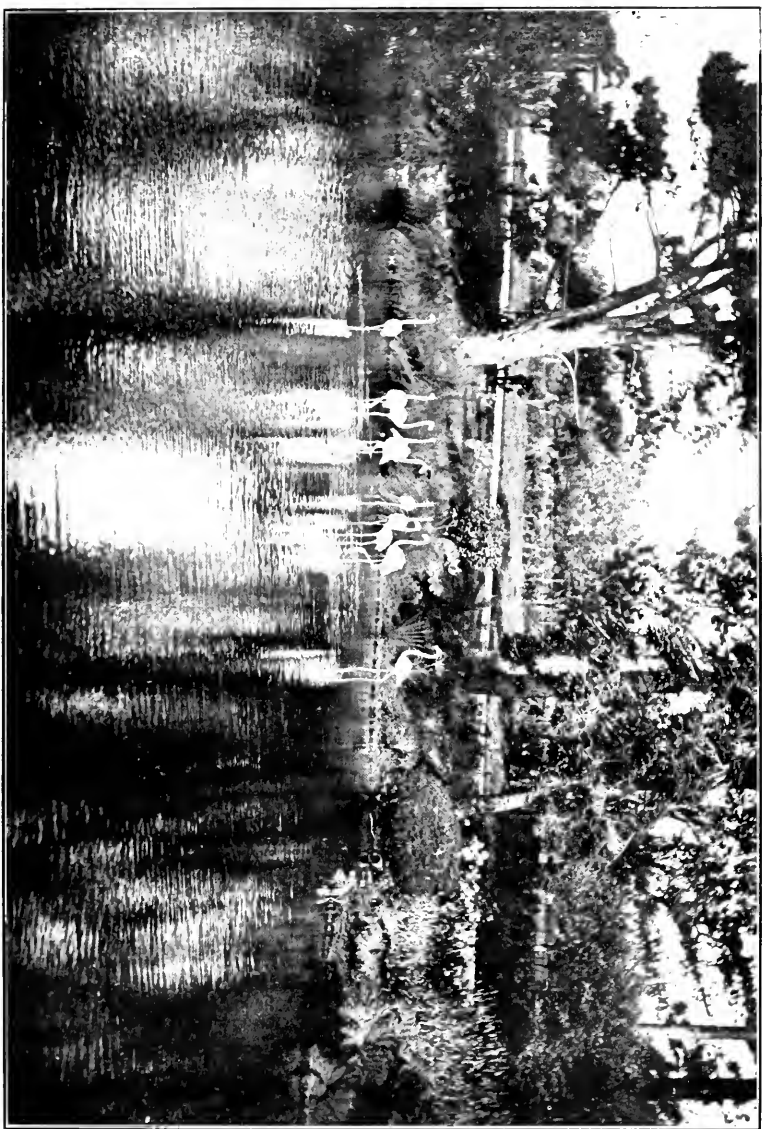
beneath the leaves, at the same time with outstretched neck peering eagerly over the foliage to see if any prey broke cover on the other side. It was as if you or I rattled a stick under some bushes and leaned over the bush to watch for a bolting rabbit !

Perhaps two of the most beautiful pictures I have stored in my memory are when one day the two egrets stood at the foot of a group of gorgeous purple irises, the snow-white birds, the purple flowers, and the green, sword-like leaves reflected in the water (a combination of colours which would have appealed to the suffragettes !); and when, on an afternoon in June, one of the egrets performed his tremolo foot movement in shallow water, whilst just above him, and all but touching him, there showered down great sprays of a Dorothy Perkins rose, and all this again reflected in the water—the little snow-white egret and the rose-pink blossoms. *Most* beautiful ! And amongst the flamingos, they look smaller than usual in comparison with those tall, long-legged, and long-necked birds.

I have seen them dance, with crest erected like the head-dress of a Red Indian, pirouetting amongst the ducks on the shore, and playfully dabbing at them with stiletto bills.

I have sat down on a stone by the pond's verge, and the two egrets have come so close to me that I could have touched them—close, not for food, but evidently for companionship. As Bravan has written of *Ardea helios* in Brazil, which he says walks about in nearly every house, they are “ the dearest little things imaginable.”

When one knows that innumerable numbers of these beautiful birds have been sacrificed for their “ aigrettes ” or “ ospreys,” in order to gratify the heartless vanity of Christian (!) women, I feel almost Hun-like in lack of mercy towards such females, who deliberately continue to purchase these plumes for their hats. People plead ignorance on their part. This is not true in many cases, for I have had women shrug their shoulders at me in a devil-may-care manner when I have told them that the “ aigrettes ” represent the shooting of parent birds and the starvation of nestlings deprived of their source of food. And then we talk of the inhumanity of the Germans ! In many things *our* houses are still built of glass.



FLAMINGOS AT BRINSOP COURT.

The Little Egret has occurred in England. One, for instance, was shot at Penzance in 1824; one at Cork in 1792; one at Christchurch in 1822; three at Arley in 1836. There are people who say the "egrets," written of as common in England in former days, were lapwings, and it is recorded that Archbishop Nevil had a thousand "egrets" at his famous feast; and more shame to him, even if they *were* lapwings!

At any rate, these Little Egrets were common enough in Europe, and would be still if it were not for the abominable fashion of wearing their dorsal plumes in human females' head-gear.

One would like to make those women who, knowing the facts, insist on wearing "aigrettes," stand by to see the egrets slaughtered—stand by, too, to hear the nestlings calling for food which can no longer be supplied them; and remain standing there until the stench of corpses rose in their nostrils.

I must add that on the morning of September 12th, which was clear and brilliant, both egrets flew very high at 6.30 a.m. (summer-time), and to my dismay, when I went to give them their breakfast, the male was nowhere to be seen. I searched for him by three small ponds which lie in different parts, but without avail. The day passed, leaving me saddened. Seven o'clock arrived, and I had just remarked to someone that I was afraid the bird had really started on a migration and would be shot, when, hearing a commotion of swallows' twitterings and cries—for large numbers were wheeling over the ponds—I looked up, expecting the presence of a hawk, and there was the lost egret sailing lightly down (a bolt from the blue!). He wheeled round me and settled at my feet. I think he must have passed the day by a reedy pond on a neighbouring estate, for he came from that direction, and was not particularly hungry. However, he could not resist a dace thrown in to the entrance hall, so that I was able, very reluctantly, to catch him and clip some feathers of one wing.

A VISIT TO THE ZOO EIGHTY YEARS AGO.

By Dr. E. HOPKINSON.

Let us commence with "the finest collection of Parrots ever assembled. Open your eyes and shut your ears—was there ever such an assemblage of rainbow colours—was there ever such a distracting din! We should have thought it indescribable, had not Aristophanes in a chorus of 'The Birds' hit it off to a nicety:

"Torotorotorotorotolinx!

Kickabaw! Kickabaw!

Torotorotorotolinx!

"Mark that elegant Parrakeet with pure golden plumage. It is a variety of *Palæornis torquatus* which is placed beside it. Observe it on the hand of its favourite keeper, expressing its fondness by a thousand winning ways. It is formed to be the *delicie* of some beauty. Its delicate shape and hue would well grace her fair hand, and the murmuring caresses of its coral beak would be better lavished on her sweet lip than our worthy friend's bristly chin."

Might not this have been written yesterday, and not, as is really the case, in 1836? For it is taken from an article on the Zoological Society and its Gardens in 'The Quarterly Review' for June of that year, which has for its titular *raison d'être* the first published List of the Animals in the Gardens and the Proceedings and Transactions for 1836. The writer, from the amount of space he devotes to birds and the special interest he appears to take in them, one likes to think of as a "birdy" man himself. After a typical Quarterly prelude of some pages, thickly set with classical and historical allusion, on zoology from the times of the Cæsars, or rather what stood for zoology then, up to the then quite recent foundation of the establishment, he asks us to accompany him and "take a cursory view" of the Gardens. He commences on "the terrace commanding one of the finest suburban views to be anywhere seen" where he pauses to enjoy "'the sweet south' wafted over the flowery bank musical with bees, whose hum is mingled with the distant roar of the great city."

In this particular paragraph the extract may no doubt show its age, for views' epithet is hardly a fit one to-day, as N.W. 17 can

hardly call itself a suburb in this year of grace (+ war), nor nowadays in this era of tubes and petrol do we feel very distant from the great city. But these are details which detract but little from the wonderful youthfulness of the whole. The mention of epithets reminds me that the present representative of the yellow parakeet of 1836 by no means merits those its predecessor's character received, although its beauty can be no less than the subject of the eulogy quoted above. The present lutino, the property of one of our members, is, I believe, a temporary inmate at the Zoo for reformatory purposes, or perhaps one had better say Borstal treatment; at any rate, I should prefer not to be the beauty whose lips this one's beak got anywhere near.

But we must get away from the Parrots and follow our guide to see the other birds to "the lawn where the black swan, no longer a *rara avis*, has twice made her nest, and now rejoices in her two cygnets, and where the New Holland Goose has hatched and brought up her young."

We are then taken to the aviary which at that time fronted the lawn; is this the present eastern aviary? Here we are introduced to Crowned, Demoiselle, and Stanley Cranes, "comely" Curassows, "melancholy-looking Herons and Bitterns that seem to pine for the whispering of reeds," Spoonbills, Storks, among which is the Marabou "with its adjutant-like stalk," and lastly, the "Secretary," whose snake-killing deeds receive half a page of picturesque description. The Marabou, too, has a special paragraph to himself, which I must quote here, as it might have been written about a bird I had during my first tour in West Africa, that is, if for "hall" one reads "hut."

"But just look a moment," we read, "at that ancient, the Marabou Stork, and only fancy him standing behind his master's chair at the dining table, expectant of his share of the feast. In such a situation Smeathman saw one in Africa, which had been quite domesticated. From his high roost on the silk-cotton trees, he would, even at the distance of two or three miles, descry the servants carrying the dishes across the yard, and as they entered the hall down would he dash among them and take his place at the head of the table. They had some difficulty in making our friend the

Marabou respect the dishes before the arrival of the guests; and in spite of their surveillance and their switches, which they carried *in terrorem*, a boiled fowl or two would suddenly disappear every now and then; one snatch of that enormous beak, one gulp of that *barathrum* of a throat, and the pullet was gone."

The last sentence is perfect in its cinematographic descriptiveness. As did this bird of the early days of West Africa, so did ours of the early days of this century, except that I do not think he ever managed to collar such valuable dishes as even African fowls are now that one does not pick up handfuls of gold even on the Gold Coast, and I know that he never got boiled ones, for these are *anathema maranatha* to his owner. He, too, however far away he might have been at other times, was always about the compound at "chop-time," and never had two or three miles to cover at the last moment.

Pelicans, Emus, and other large birds are noticed, but nothing is said about small birds, so that we may presume that they were entirely absent from the collection or in very small numbers and hidden away somewhere, probably in the Parrot-house, and perhaps in those little glass-topped boxes, which are now no more than a hideous memory. Certainly there was nothing at all resembling the large aviaries of the present, the Western, the Waders, and best of all, the Summer aviary, where visitors can walk practically among the birds. The Eagles at this time were kept, I suppose, in the range of aviaries, the base and back of which now stand derelict alongside the tea-place and forming a place for any overflow from that table-dotted area. The Eagle-house, the Quarterly Reviewer confesses, he never passes without a pang: many still feel the same. Eagles never look happy in captivity, though I expect that it is more a matter of looks than anything else, for birds must be like people—among both are some who cannot possibly look happy even in the midst of happiness. His pity is also excited by a Blackcock, for which there was only "a coop instead of the wide-spreading moor, and the soiled and trampled turf instead of the fresh wild heather! Better, far better (he muses) "for him to roam, with the chance of being

‘ Whistled down with a slug in his wing,’

than to linger out a cheerless unnatural life thus."

These are the only sad notes struck during the tour, if one excepts the reference to the inevitable "bills of mortality." Here the London clay receives its due share of blame for the frequent length of these; the same is as true to-day as then. However, it is noted that the sick beasts have the benefit of the service of "a learned and experienced medical attendant," who, however, we are told often had to contend with great difficulties in "administering remedies and performing operations, bleeding for instance." Here in these last three words is a true and certain index to the age of the article, even if it had been put before us undated and without any external evidence of its origin. But otherwise, and as a whole, it is remarkably modern and even *apropos* to the present, not only as regards things actually pertinent to its subject, but generally speaking, for it includes, in fact, begins with, that time-honoured British institution a "grouse," and one, too, at the British Government, a form of grouser, which I suppose has always been one of our special privileges from time immemorial, and will remain so until the end.

This is where I ought to end also, but I cannot help throwing out the suggestion that the Zoological Society should reprint the whole article, so interesting is it, not only to a casual reader, but also historically. The Society could from its records add notes on the persons and incidents mentioned in the review itself and on the many changes in the geography of the Gardens between then and now. If this idea commends itself to those who sit at the zoological helm, I would suggest that those old woodcuts of scenes and buildings in the Gardens some of which appear as tailpieces in the two volumes of 'The Gardens and Menagerie Delineated,' should be used to illustrate the review itself, as they were no doubt well known to the writer thereof and are certainly most suitable companions to his account, both in character and period, for the volumes mentioned appeared in 1830, while photographs would do the same for the modern notes which I hope will accompany and amplify it.

Where was the Lion-house of those days, and where were Monkeys? Presumably not far from the lawn, for our reviewer calls that "monkey green," and wonders that any can be found to gaze at apes when it (the green) "is crowded with England's richest beauty."

These and hosts of other such questions ask for answers before it is too late, and how better can they be answered than by such a union of past and present as that I suggest.

A few of the 1836 visitors' stopping places still are recognisable, but to most change has come, no doubt, nearly always for the better, for he laments the large number of temporary wooden buildings which disfigured the Gardens in his time and which were a necessity owing to some rule or regulation forbidding the raising of any building above a certain height. I seem to recognise little beyond the Terrace, the Tunnel, and that "apartment where lived . . . the most amiable of Quasimodos, the Chimpanzee." The last, with its smell compounded of ape, ant-eater, and hot-water pipes, is now a thing of the past, or more accurately, part of the present palatial offices, but the two first are still with us, and one on its way to have a twin brother. Heaven preserve us from any danger of the other being similarly favoured. Our writer, it is true, was a great admirer of the Terrace, and regrets that a proposal by the architect to continue it "along the southern (!) line" was rejected (*Gratias Deo. EH.*) on account of the health of the animals. How he would have loved the Mappin Terraces!

MY EXPERIENCE WITH BRITISH BIRDS.

By E. R. CRISP.

A lot of people say I have influence over birds. I think it is the other way about; birds have influence over me and have captured my affections, and since taking up the hobby have added a lot of pleasure to me, both indoors and out. Indoors, by their lovely song during the dull winter months, and their many different ways of showing their acknowledgment for kindness shown in captivity.

Out of doors, what is more beautiful when the hawthorn is in bloom and all the birds in full song, than to sit in the meadows and listen to all their varied notes in Nature's fulness?

The caroling of the Lark, the shrill and varied song of the Thrush, the flute-like notes of the Blackbird, and many others, all seem to blend together in lovely harmony and make one marvel at

the wonders of Nature. All this I did not understand till I took up the hobby, and for that reason alone I would advise all who can to keep a few birds.

The first bird I ever had was a greenfinch. This bird became so tame that he would follow me from room to room and fly on my shoulder, then from picture to picture, and when a saucer of water was placed on the table would soon be down and have a bath, then back on the pictures again and finish his toilet.

Next bird I had was a linnet. This bird became very tame also; he would fly on a boot whilst I was repairing it and take a seed from my tongue, then fly back on to the shop clock and sing away; also, when my wife washed the children he would fly on edge of bath and dip his little head in and have a little bath by throwing the water over himself, needless to say to the delight of the children and us all.

Next bird I had was a thrush. This I also tamed to sit on my finger, and at night when I and my wife were having supper he would fly from my shoulder to hers and share our meal, then a fly round on the pictures. A stray cat finished this lovely songster's career, by clawing him through the cage bars, mauling him so much that he died next day.

I tried to procure another nest the following year, but arrived on holiday in Bishop Stortford too late in the season, and all I could find was a nest with two Blackbirds. These I took home and reared; one I sold, the other I kept and trained to whistle four tunes, viz.: "If you want to know the time ask a Policeman," chorus of "The Old Folks at Home," "Are you Working," and a little dancing ditty.

All these he would whistle to me at any time and never kept me waiting more than two minutes morning, noon, or night; even at 12 midnight he has obliged me, no matter how many strangers near.

Three photos of this bird were taken by a 'Daily Sketch' representative and were reproduced in that journal, June 11th, 1912.

I foolishly sold him for £8 and regretted it ever since, for I have failed to train another since then.

Last year I reared several Blackies; two of them had very

opposite temperaments. One would unfasten his cage-door and open it, but not fly out. The other, if I opened his cage-door wide would close it himself, first by hopping on to ledge, stand there and reach door-bar with his beak, close it as far as possible, then step back on to cage bottom and finish closing it with quite a bang. This was witnessed scores of times by some officers billeted here, and they used to say he shut the door to keep the draught out !

I could mention several other occurrences with different birds, but time will not permit.

I maintain that any bird or animal can be tamed and trained, and its confidence gained by kindness and general good friendly treatment, and my advice to all bird-keepers is : Study your captive pets' different ways and whims, feed them as naturally as possible, never grudge the time taken to attend them, for you get amply repaid by health and song and their beautiful appearance.*

THE SECRETARY BIRD.

By GRAHAM RENSHAW, M.D., F.R.S.E.

“Clad in the parish uniform of grey jacket and black breeches, observe how ceremoniously the pompous villain struts along with his quill jauntily stuck behind his ear, like a lawyer's clerk.”—*Sir William Harris on the Secretary Bird.*

Those who have read Sir William Cornwallis Harris's fascinating ‘Portraits of the Game and Wild Animals of Southern Africa’ will recall many apt descriptive phrases which occur in that valuable work. He writes, for instance, of the “peacock necks” of a troop of giraffe, of the “magpie flanks” of a gemsbok, of the “round gooseberry eyes” of a lion ; but his happiest touch seems to be his comparison of the stately, striding Secretary Bird to some old-fashioned, dignified parish clerk. Harris's work includes a South African landscape drawing, with antelopes and a couple of Secretaries. One bird is shown perched on a small ant-hill, turning its plumed head as it surveys the landscape, while its mate sails on high over the parched

* [We can recommend the cages made entirely by Mr. Crisp's eleven-year-old-boy. They are cheap and practical. I have lately had some made to order, according to my required measurements, etc., for nightingales.—*Ed.*]

valley, carrying a snake in its beak. Although somewhat amateurish in execution, the truthfulness of the picture is self-evident, and gives a most interesting glimpse of bird life. It is a drawing which gives a more realistic conception of wild creatures at home than many lines of letterpress.

The Secretary Bird differs widely from most of the species known to aviculture; for these are often rare and delicate, whereas the Secretary has been easily kept in captivity, time after time, ever since there has existed any study which by the widest interpretation could be called aviculture. Even in the prehistoric days of the Dutch rule at the Cape the "sagittarius" was well known, for it occurred everywhere, even in the extreme south, and its striding walk, as it paced the flats, caused it to be likened to an archer marching to attack. The earliest living example in Europe was a bird sent to Holland by Heer Hemmy, a member of the Board of Justice at the Cape. It was a present to the Prince of Orange, who placed it in his menagerie—at that time almost the finest (if not *the* finest) zoological collection in existence. The menagerie was installed at the Hague, and was described by Arnaut Vosmaer in a quarto work, entitled 'Regnum Animale'—a lengthy production in thirty-one parts, which took several years to publish. He also published in 1769 a special notice of the new bird, "Beschryving van eenen Africanschen Roofvogel." Thus was the Secretary Bird introduced to European aviculture, under the direct patronage of royalty and the learned benediction of science.

The first examples seen in England were a pair owned by Mr. Raymond, of Ilford—at least a pair were originally sent home—one bird died, possibly before it reached Mr. Raymond. The survivor was seen by George Edwards, who described it in the 'Philosophical Transactions' for 1771. Further importations followed; thus, in 1780, Buffon remarked that the Secretary was to be seen in "some English menageries," and a year later it was figured by Latham from *three* which he had seen alive in England. These early importations reflect the greatest credit on all concerned—undertaken, and successfully undertaken, in the days when the voyage from the Cape was of an utterly wearisome length, and when aviculture was in its early infancy.

The Tower of London is famous for its list of illustrious victims, though block and axe have long been idle. About 1828, however, it witnessed a novel tragedy. The famous Tower menagerie at that time included a Secretary Bird, together with several other African animals, such as a lion, cheetahs, spotted hyænas, a hyæna dog, baboons, and so forth. The Secretary being one day let out for an airing, thrust an inquiring head into the cage of a hyæna, who promptly bit it off. Thus the unfortunate bird, like many other better known characters, was in deed and truth "beheaded in the Tower."

Probably the most earnest student of the Secretary Bird was M. Jules Verreaux. In his day he was a well-known collector, and with his brother established the firm of Verreaux Frères, naturalists and taxidermists. The trophies of Sir Alexander Smith and Sir William Harris were mounted by Verreaux's, and specimens of their art are still to be seen at the Natural History Museum at South Kensington. Long resident at the Cape, Jules Verreaux had many opportunities of natural history study; he kept a large collection of living animals, which included many Secretary Birds. He was apparently the first aviculturist to breed them in captivity, though the experiment got no further than the egg stage. Three eggs were laid and partly incubated, but the crowded state of the menagerie precluded complete success. Firmly convinced of the great value of the Secretary as a vermin-destroyer, Verreaux advocated its introduction into the French colonies, and when M. Freycinet went in 1826 to govern Cayenne he took with him several pairs on Verreaux's recommendation. Unfortunately, the colonists took so little interest in the experiment that it proved a failure; perhaps, also, the climate of Cayenne was unfavourable to the new importations. A whole-hearted aviculturist, Verreaux also advised the introduction of the Secretary into Algeria and even India; from what the present writer has seen of the former country the wide, sandy, reptile-haunted wastes of the Sahara would seem excellently adapted to its habits. Northern Africa, indeed, curiously parallels Southern Africa in many of its characters; in Sahara and Karroo alike there occur arid sandy flats, with appropriate desert fauna. In the North, for instance, we find various gazelles, in the South the springbok: in the North the

jerboa rats, in the South the leaping hare; in both, ostriches, bustards, and sand-grouse. In spite of Verreaux's efforts, no further efforts to acclimatise the Secretary seem to have been made, either in Algeria or anywhere else.

The writer has studied some eight of these birds in captivity; they are a fine ornament to any collection, especially if they can be allowed a considerable amount of freedom. Elegant and dignified, the Secretary is remarkable for the pen-like plumes which decorate the occiput and wave gracefully with every movement of the head; these plumes can be erected under sudden excitement, like the dorsal crest of the springbok. When in good health Secretaries are very playful, running along with wings outspread in flamingo fashion, or leaping high in the air like a game-cock. In more serious mood they slowly patrol the ground, gaze directed sideways, carefully inspecting grass and herbage for mouse or rat or lizard. When prey is sighted the bird runs quickly up, striking rapid and repeated blows with a small but powerful foot until it is subdued; in devouring it the Secretary holds it with the foot and tears off morsels with the beak. These birds are amusingly expert flycatchers, portly and heedless bluebottles being suddenly stamped flat, and carefully eaten as diet accessories. Then the stately walk is resumed, the long tail swaying up and down (and often from side to side) as the bird paces the grass. When standing still the tail almost touches the ground; a favourite attitude is a resting position supported on one leg and the foot of the other, the tarsus being flexed and all the toes contracted. The Secretary often rests squatted on the ground like a game-bird, especially during the hottest part of the day. The writer would call attention to a character apparently hitherto unnoticed—namely, the large beautiful eye of this species, liquid and lustrous as that of a giraffe, the resemblance being heightened by the “eyelashes,” composed of altered feathers.

Verreaux states the egg of the Secretary Bird to be white, unspotted, but one now before me is cream colour, faintly marked all over with dull rust red. In consideration of the wide range of the species there is probably wide variation in the egg also.

Bridge House,

Sale, Manchester.

MANTELL'S APTERYX.

By GRAHAM RENSHAW, M.D., F.R.S.E.

“ We have here an illustration of the value of possessing living examples of rare and little-known animals.”—*Mr. A. D. Bartlett on a species of Apteryx.*

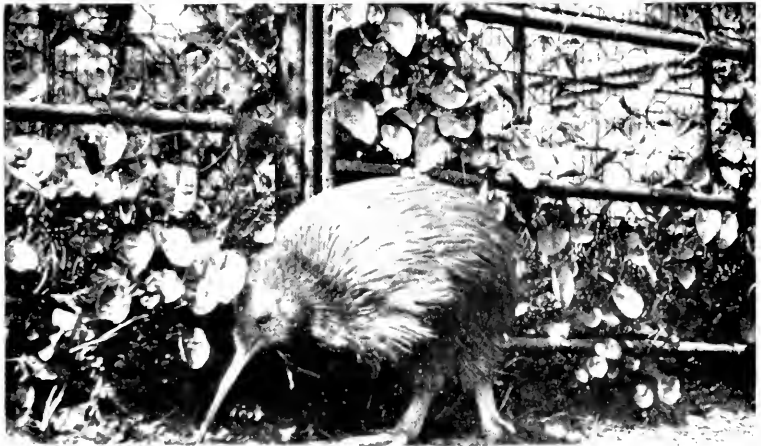
The first aviculturist to keep Mantell's Apteryx appears to have been the Rev. Mr. Yate, of Waimate, New Zealand. In January, 1834, he received a single specimen, which he kept alive, and probably intended to send to London—a live Apteryx, or even a dead one, being then much desired at the Zoo. The only example then in England was one in the museum of Lord Derby; so little was the bird known that on the Continent its very existence was questioned. Lord Derby set all doubt at rest by forwarding his unique specimen to London; it was unstuffed, and exhibited before the Zoological Society on February 12th, 1833. Mr. Yarrell then described the bird, and appealed for more specimens on behalf of the Society; and Mr. Macleay, the Colonial Secretary for New South Wales, asked Mr. Yate to try and get one. A second individual was duly procured, as we have seen; unfortunately, in Mr. Yate's absence from home, it died. The bird had lived for nearly a fortnight; alive or dead it was worth preserving, and one of Mr. Yate's boys managed to skin it. The legs, however, rotted off, and this mangled relic was all that reached Mr. Macleay. He sent it to England to the Zoological Society; imperfect as it was, it had scientific value as the second known specimen of a very rare bird.

The first Mantell's Apteryx to reach Europe alive was a female, received at the Zoo in 1851. She was a gift from Lieut.-Governor Eyre, and had travelled in state by H.M.S. “Havannah,” under the care of Admiral Erskine. She became somewhat of a celebrity; her portrait appeared in the illustrated papers, and various descriptions in the press noted her habits and appearance. An excellent figure, for example, appeared in the ‘Illustrated London News’ for December 27th, 1851. The bird is shown in a characteristic attitude, standing huddled up, the tip of her bill resting on the floor; so excellent is the portraiture that she *must* have been sketched from life—no artist drawing from a skin (or from imagination) could have rendered a pose at once so singular and so truthful. The bird



SECRETARY BIRD.

Characteristic resting attitude. One leg is flexed and the toes contracted and approximated.



MANTELL'S APTERYX

This specimen had lived eleven years in captivity.

was kept in the "new ostrich house," then recently built in the north-east corner of the Gardens. The writer well remembers this structure; it contained five loose boxes and was paved with brick, and was used for housing the Society's Cassowaries. In later years it also contained a good series of *Apteryxes*—*Apteryx oweni* and *A. australis*, as well as *A. mantelli*. This interesting little building was eventually pulled down to make way for the new zebra house, which was completed in 1899.

The public flocked to see the *Apteryx*. In the daytime she slept in a square deal box, one side of which was hinged to allow easy inspection of the inmate; there was also a back exit covered with a curtain of sacking. The bird was fed on earthworms, for which she used to probe in a heap of soil placed in the stall; *she never stamped her feet* "to bring the worms to the surface"—thus exploding one more zoological myth. She was bad-tempered, and no wonder, for she had been teased on board ship, and being frequently disturbed for inspection would not tend to improve matters. Fresh bands of visitors were admitted to the little house; London came to view the *Apteryx* as it had come to see the hippopotamus the year before, and in the year after would come to see the great Anteater. Apparently the public expected to see a bird at least as big as a Cassowary, and was frankly disappointed. "What a little thing it is" was the constant remark of visitors, for the distinguished stranger was no bigger than a large fowl. This, or another individual, is excellently figured in two positions in the Rev. J. G. Wood's 'Illustrated Natural History,' standing by a pool in the moonlight, with fern scrub, which gives a good idea of the size of the bird. In figuring any animal, and especially one that is new or little known, such accessories should always be introduced to indicate the comparative size of the subject portrayed. Unfortunately, in the old natural histories this point was too often neglected, the so-called "illustration" frequently giving a totally erroneous impression of size.

The *Apteryx* thrived, and lived many years in the Zoo, under the successive (and successful) care of three superintendents—Messrs. Miller, Thompson, and A. D. Bartlett. On June 9th, 1859, she laid an egg, and another in February, 1860. After this she

began to lay regularly, there being two eggs every year. In September, 1863, Major E. Ruck Keane obtained a second Apteryx from a Maori, who had taken it in a swamp; this was safely brought to England, and the Major presented it to the Zoo. In spite of the other bird's peevish temper the two agreed well together after a few days. In 1865, a male bird, which had been presented by Surgeon Henry Slade; R.N., showed a wish to pair with the original bird of 1851—now some fourteen years in the collection, and like a famous whiskey, “still going strong.” Two eggs were laid, and the male incubated them constantly for more than three months, but without result. At last he gave up exhausted; the eggs were found to be clear.

Apteryxes subsequently became fairly well known to Continental aviculture. In 1870, the German Consul at Wellington received from Sir W. L. Buller several *Mantelli* for transmission to Berlin. At that time they were still common in parts of New Zealand; in 1871, two more were added to the London Zoo—one purchased, and the other as a gift from Mr. A. Lafone. In 1902, the writer saw both Mantell's and Owen's species in the great zoological garden at Amsterdam. In 1902, there was an Apteryx at Cologne; it was kept in the ostrich-house, a curious structure built like a mosque, lighted from above, and heated in winter by two stoves. In the same year an *Apteryx mantelli* was received at the Berlin Zoological Gardens.

During the past sixteen years the writer has had the good fortune to see some five individuals of Mantell's Apteryx. These birds spend the entire day in profound sleep, never stirring till all is dark; if several are kept they huddle together in a heap. In slumber the bird lies with the feet bent under the body, and the head directed backwards; the bill is pressed close to the side, and lies above the wing and not beneath it, whereas in certain flightless birds, such as penguins, the bill lies *below* the wing. On being lifted out of its straw the Apteryx usually remains passive in the observer's grasp, though some individuals struggle and kick. The brown hairy plumage and whisker-like vibrissæ of Mantell's species suggest a mammal rather than a bird; the legend of the *kāureke*, a rat-like mammal formerly supposed to inhabit New Zealand, was probably founded on some hasty glimpse of a running Apteryx. The eye of this bird is

black (not red or green, as shown in the old books, according to the imagination of the artist!) Apteryxes do not seem to be at all incommoded by daylight, although they are so strictly nocturnal; the eyes are of a diurnal type, being quite small, as in the Owl Parrot (also nocturnal)—one would have expected to find large globular eyes in both birds. The beak in life is dead white, but in museum specimens may be dark brown—when this occurs it is due to careless collecting, for if the dead bird is carried head downwards in the usual fashion the delicate capillaries of the beak become congested with blood, thus imparting a dusky tint to the beak.

Apteryxes vary in temper, some being quite placid under examination, others struggle and growl if picked up. When really angry the bird rears up like a Cassowary, lengthening the head and neck; it then kicks savagely forward, raising the foot right up to the body, and growls—once heard, the curious rough growl of an Apteryx is never forgotten. The various species may be fed on worms, but minced meat is a more convenient diet in captivity. In conclusion, the writer would call attention to the excellent photographs of Apteryxes, by Gambier Bolton and others, which have been published in recent years—especially the “portrait of a gentleman”; *i. e.* *Apteryx mantelli*) by the above-named observer.

Bridge House,

Sale, Manchester.

THE GREAT BIRD OF PARADISE ON THE ISLAND OF LITTLE TOBAGO (*Paradisea apoda*).

By SIR WILLIAM INGRAM (*with Caretaker's Diary*).

I introduced the Great Bird of Paradise on the Island of Little Tobago eight or nine years ago. The birds were collected in the Aru Islands, New Guinea.

If one takes a globe of the Earth, and sticks a long pin right through from Aru to the other side, the point will come out very near to Little Tobago, so that it can be understood that the Paradise

Birds are about as far as possible from their native land, but that their proximity to the Equator is very nearly the same.

A watcher is always left in charge of the birds, the first man engaged for this job having been a very intelligent sailor, who gave out that he was a Swiss; but when he was dying he disclosed the fact that he was a runaway son of a Bohemian Professor.

His successor was a black man who somewhat objected to a lonely life on the Island, and who took with him a dusky woman who was already married, and whose lawful husband invaded the peaceful home of the Paradise Birds, murdered his former wife and the son of the watcher, leaving the latter with very little breath in his body!

Now an ex-policeman, a negro, looks after the Island and seems fairly intelligent. It is his reports which I send, in the form of a diary, since they may interest the members of the Avicultural Society.

As to the success of the experiment of acclimatising the Great Bird of Paradise there seems little doubt, and their numbers having apparently increased, there is a hope that they will become naturalised.

DIARY, LITTLE TOBAGO, 1917.

Saturday.

28/4/17.

Returned to Island at about 11.30 a.m. from Spey Side; found all regular; left in the afternoon; watered the birds; seen and heard them flying about and crying from point to point. No rain; sea calm; everything very dry; all correct.

JNO. H. HAMILTON.

Sunday.

29/4/17.

Left Camp in the morning; watered the birds; patrolled a part of Island; seen and heard the birds as usual. No rain; weather or day very sultry; sea calm. There is no difficulty in seeing or hearing the birds whatever, as daily they are seen around the house; they are in full plumage now; they are as familiar about the Island as the native birds. No rain; weather very warm at this time; all correct.

JNO. H. HAMILTON.

Monday.

30/4/17.

Left Camp and watered the birds, also patrolled a part of the Island; seen and heard the birds; the weather at this time, being so very warm, they keep more in the thickest part of the Forest, being more cool; then in the evening they come in the front part of the land, till in the morning between the hours of about 8 and 9 they go out to the Forest. Left Camp in the afternoon and patrolled as aforesaid or mentioned; saw them coming in twos and threes. No rain; very high winds all the time; sea ordinary; all correct.

JNO. H. HAMILTON.

Tuesday.

1/5/17.

Left Camp in the morning; watered the birds, and patrolled a part of the Island; seen and heard the birds as usual. Up to this morning, during my patrol, I notice several young P. B. in parties of threes and fours, feeding on the Parasol berries; then, a good while after, the male and female birds come and join the younger ones. No mistake they are all over the Island. Left in the afternoon and patrolled as above; shot one Hawk. Weather continues to be very windy day and night. No rain and everything dry. Sea ordinary; all correct.

JNO. H. HAMILTON.

Wednesday.

2/5/17.

Left Camp in the morning; watered the birds, and patrolled a part of the Island; seen and heard the birds as usual. I notice they are keeping more in the high woods, being much cooler, than in the front part of the Island, all the same they are seen and heard all over the Island. I also notice that they feed on the Parasol Tree berries, which are plentiful on the Island, especially in this season. Left in the afternoon and patrolled as above, plenty of high winds day and night. We had a slight shower of rain at about 7 p.m., but did not continue for any time. Shot one Hawk; sea ordinary; all correct.

JNO. H. HAMILTON.

Thursday.

3/5/17.

Left Camp in the morning and watered the birds as usual; also patrolled a part of the Island as customary seen, and heard the

birds all the time. I notice there are a good many young birds, they come down in front of the house, especially in the mornings; there is no difficulty in seeing or hearing them as they are all over the Island, no matter what direction you go they are seen or heard. Left in the afternoon and patrolled as above; the high winds continue, no rain during the day, but we had some slight showers during the night; sea pretty rough; all correct.

JNO. H. HAMILTON.

Friday.

4/5/17.

Left Camp in the morning; watered the birds, and patrolled a part of the Island; seen and heard them all during my patrol; very warm day, but rain is threatening all the time; can't find any nests as yet; very high winds, especially at night. Left in the afternoon and patrolled as above; fair showers of rain during the night and very high winds; sea very rough; all correct.

JNO. H. HAMILTON.

Saturday.

5/5/17.

Left Camp in the morning; watered the birds, and patrolled a part of the Island; seen and heard the birds as usual, nothing unusual among them as far as I can see, there is a great increase among them to when I took charge of the Island 13 months ago, and they all appear quite homely and about the Island, their popularity is no difference with them and the real native birds. Left in the afternoon, and patrolled as above; plenty of high winds all the time day and night, no rain; sea very rough; bay impassable; all correct.

JNO. H. HAMILTON.

Sunday.

6/5/17.

Left Camp in the morning and watered the birds; seen and heard them, in their usual style, flying about from point to point, and calling each other. Left in the afternoon, and made a short patrol; no rain, very warm day; sea very rough; all correct.

JNO. H. HAMILTON.

Monday.

7/5/17.

Left Camp in the morning, watered the birds, and patrolled a part of the Island as customary; seen and heard the birds

wherever I go. Shot one Hawk. Very warm day, rain threatening all the time, the birds seem very happy all the time, and very pretty to look at, and to hear their curious way of crying is something amusing. Left in the afternoon and patrolled as above; no rain as yet, but very high winds all the time; sea very rough, and high tides; all correct.

JNO. H. HAMILTON.

Tuesday.

8/5/17.

Left Camp in the morning, watered the birds, and patrolled a part of the Island; seen and heard them as usual, crying and flying about from point; all through the day they are seen and heard, the same as the common birds, they are all over the Island; very warm day, no rain, high winds as usual. Left in the afternoon, and patrolled as above. Shot one Hawk. Can't find any nest of the P. Birds as yet which is a puzzle to me, as there are a great many young birds I see daily, furthermore there is a great increase in the P. birds to a year ago, when I took charge all of the same, I have not given up looking; any one visiting the Island, there will be no difficulty in seeing the birds, as they are all over the place; all correct.

JNO. H. HAMILTON.

Wednesday.

9/5/17.

Left Camp in the morning and watered the birds; seen and heard them. Left Island and proceeded to Spey Side for groceries and interviewed Mr. Tucker; all correct on the Island.

JNO. H. HAMILTON.

Saturday.

12/5/17.

Returned to Island at about 9 a.m., found all regular. Left Camp in the afternoon, and patrolled a part of the Island; also watered the birds; very hot weather existing, no rain, everything dry, no rain; all correct; seen and heard the birds as usual.

JNO. H. HAMILTON.

Sunday.

13/5/17.

Left Camp in the morning; watered the birds; seen and heard them as usual, they all seem very happy, which they should be, there is only one enemy they have got on the Island, that is

the Hawks, and as fast as I can get within reach of them they are shot: no rain, and not very high winds, weather very hot and calm seas; took a slight patrol in the afternoon; seen and heard the birds which there are no difficulty in, they are always flying and alighting in front of the house, they are looking beautiful in bright plumage; all correct.

JNO. H. HAMILTON.

Monday.

14/5/17.

Left Camp in the morning; watered the P. B., and patrolled a part of the Island, as I usually do; seen and heard them in their happy style. Shot one Hawk. Weather continues to be very warm, no rain; I notice the P. B. keep more in the thickest parts of the land or wooded parts where they gets more cover from the sun, than on the front part of the Island. Left in the afternoon, and patrolled as above. Shot another Hawk. These hawks are very much dreaded by the other birds; no rain as yet, the sun continues to be very hot; high winds during the night; sea ordinary; all correct.

J. H. H.

Tuesday.

15/5/17.

Left Camp in the morning with gun; watered the birds and patrolled a part of the Island; seen and heard the P. B. as usual flying about from point to point; no rain during the night, but slight drizzling in the morning, and high winds all the time. The Island is very much more drier this year than last year, everything is parched. Left in the afternoon, and patrolled as above; seen the birds quite happy flying about from point to point. Shot one Hawk; all correct.

J. H. HAMILTON.

Wednesday.

16/5/17.

Left in the morning, watered the birds, and patrolled a part of the Island; seen and heard the birds as usual; these are much more than when I took charge last year, there are plenty of young ones, which has made the number greater, it is a pretty sight, to sit under a tree where they assemble on, and to hear their peculiar crying calling the others, it is something amusing. Whilst I was under a panoll apple tree, looking at them, the female bird stood

there and cried, cried for about ten minutes, then I saw six younger ones come and joined her, then the male bird came also, in fact, several male birds came, and there was such a noise among them, it was something amusing. Left Camp in the afternoon, and patrolled as above. Shot three (3) Hawks. I believe every bird in the Forest are afraid of them. No rain, very warm day, and dry; sea very calm; all correct.

JNO. H. HAMILTON.

Thursday.

17/5/17.

Left Camp in the morning, watered the birds, and patrolled a part of the Island; seen and heard them as usual. Shot two (2) Hawks, they are plentiful in this season, they are the greatest enemies to other birds. Very warm day, plenty of hot sun; it is a pleasure to see and hear the P. Birds, especially the male birds with their heavy plumage, looking so pretty, there is a good many young ones, as I notice to-day. Left in afternoon, and patrolled as above. Shot two (2) more Hawks, they are raging on the Island, I am at them morning and afternoon, all the same it seems that the P. Birds are not afraid of them, for I notice when the hawks cry the other birds keep still, or fly off from where they were, but the P. Birds remains and go on in their usual way crying and jumping about from limb to limb; no rain, and very sultry day and very hot; sea very calm: all correct.

JNO. H. HAMILTON.

Friday.

18/5/17.

Left Camp in the morning and watered the birds, also patrolled a part of the Island; seen and heard the P. B. in their usual style. I believe in the next two years, the Island will be all over Birds of Paradise, for in any part you go they are seen in parties of least six or seven, flying from point to point, they are increasing splendidly. No rain. Left in the afternoon, and patrolled as above; seen and heard the birds as usual; weather continues to be very warm; sea calm; all correct.

JNO. H. HAMILTON.

Saturday.

19/5/17.

Left Camp in the morning, watered the birds, and patrolled a part of the Island; seen and heard the birds. Shot another Hawk,

they are plentiful on the Island at this time of the year, although it seems to me that the large P. B. or the old ones does not seem afraid of the hawks. Weather continues to be very hot, no rain, everything dry. I must say the birds are encouraging to look at, their beauty alone is something to look at, they are increasing rapidly as can be seen. Left Camp in the afternoon, and patrolled as above; nothing unusual. Shot another Hawk. The Island is so warm, especially on the borders of the land, that the P. B. keeps more in the centre parts of the land or forest, not until in the afternoon between four and five they comes in nearer, I noticed that they do not like heat, they are fond of a large tree well cornered, and rain; all correct.

JNO. H. HAMILTON.

Sunday.

20/5/17.

Left Camp in the morning and watered the birds, also made a short patrol; seen and heard the birds as usual; in fact, whilst writing this there are four of them alight just 20 yds. in front of the house, one male, one female, and two young ones, feeding on parasol berries; we had two short showers of rain during the day, and strong winds all the time, to the delight of the P. B., they fly about and cry more; can't find any nest as yet, but still looking daily; all correct.

JNO. H. HAMILTON.

Monday.

21/5/17.

Left Camp in the morning and watered the birds, and patrolled a part of the Island as usual; seen and heard the birds all the time; fair shower of rain in the morning whilst I was on patrol, its just what the birds like; I have seen a good many young ones this morning. Shot a Hawk. Left Camp in the morning, and patrolled as above; seen and heard the birds as usual; high winds all the time and calm seas; nothing unusual on the Island, only it is very dry this year, and windy; the birds are all looking in the pink of condition, as to their plumage nothing looks more beautiful, as to their young ones, they can be seen all over the place; all correct.

JNO. H. HAMILTON.

Tuesday.

22/5/17.

Left Camp in the morning and patrolled a part of the Island, also watered the birds; seen and heard them all the time; frequent showers during the day. Left Camp in the afternoon, and patrolled as above, could not do much patrol on account of raining, all the same I saw the birds and heard them, it is their delight when the rain is falling, as I have afore mentioned, there is no trouble in seeing or hearing them whatever as they are about the Island as the native common birds, they eats the same berries as the native birds, comes down to the water pots and drinks their water the same way, no difference whatever; all correct.

JNO. H. HAMILTON.

Wednesday.

23/5/17.

Left Camp and watered the birds, and made a short patrol in the morning; seen and heard the birds as usual. Left at about 10 a.m., proceeded to Spey Side, waited there for steamer for my supplies and make other purchases; all correct.

JNO. H. HAMILTON.

Saturday.

26/5/17.

Returned to Island at about 7.30 a.m., found all correct. Left Camp in the afternoon and patrolled a part of the Island; seen and heard the P. Birds flying about from point to point, looking beautifully. We have been getting frequent showers for the last three days, everything looking green again, also the birds seem happier when it is raining, than otherwise; very high winds all the time, all the same, the weather seems delightful to the birds as they seem not to like the hot sun, they prefer rain and wind, as you will see and hear them more often; sea calm and smooth; all correct.

JNO. H. HAMILTON.

Sunday.

27/5/17.

Left Camp in the morning and patrolled a part of the Island; seen and heard the P. Birds all the time in their usual style, crying and flying about from point to point, rain continuously for the day, high winds accompanying same; sea ordinary; all correct.

JNO. H. HAMILTON.

Monday.

28/5/17.

Left Camp in the morning, and patrolled a part of the Island; seen and heard the birds as usual; morning opened fair but rain threatening all the time; the birds are in beautiful plumage, very pretty to look at; heavy showers of rain, and very high winds during the night. Left in the afternoon and patrolled as above, could not do much patrolling on account of rain; sea ordinary; all correct.

JNO. H. HAMILTON.

Tuesday.

29/5/17.

Left Camp in the morning and patrolled a part of the Island; seen and heard the P. Birds all the time; high winds continuously all the time; the P. Birds seem much happier than in the hot weather, as I have noticed in the hot weather they do not fly about from place to place so often as since the rain begin to fall; there is a good many young birds now, they can be seen at any time as they are all over the place, you would scarcely see a Paradise Bird on the ground, sometime you may see them one or two at the waterpot, they are high flown birds, and like plenty of cover, that is thick shaded trees. Shot one Hawk this morning, there are plenty on the Island, and not very easy to get at, all the same I am at them daily. Left Camp in the afternoon and patrolled as above: slight drizzling of rain and very high winds in the afternoon and during the night, all through the high winds and rains you can hear the P. Birds crying and flying about, the weather makes no difference with them, they seem happier; heavy seas all the time: all correct.

JNO. H. HAMILTON.

Wednesday.

30/5/17.

Left Camp in the morning and patrolled a part of the Island as usual; seen and heard the birds; no rain for the day only plenty of high winds; I cannot find the nests of the P. Birds, its a difficult task, as they are high flown,* the only time they may be seen on the ground is when per chance, they are at the waterpot drinking water, even to-day going through some of the wooded parts of the Island,

* [Do not Paradise Birds build their nests at rather a low elevation?—ED.]

you can see them more than in the clearer parts of the Island, and on the highest trees, and always by themselves, you will never find them among the native birds. Left in the afternoon and patrolled as above; nothing unusual; found all correct.

JNO. H. HAMILTON.

Thursday.

31/5/17.

Left Camp in the morning, patrolled a part of the Island and watered the birds; seen and heard the birds as usual; they come all near the house, whilst I am now writing they are not more than 100 yds. off crying and flying from tree to tree; no rain for the day but plenty of high winds; all the same, the Island is looking green again, which seems a happier time for the Paradise Birds, especially as they are very fond of covered trees, in my opinion, the Island will be nothing but Paradise Birds, as they are increasing rapidly, they are seen in groups wherever you go. Left in the afternoon, watered the birds, and patrolled as above; all regular; the Bay starting to be rough again; all correct.*

JNO. H. HAMILTON,

Caretaker.

OBITUARY.

BRIDGEMAN.—We regret to announce the sudden death, at the age of 71, of General the Hon. Francis C. Bridgeman, a son of the 3rd Earl of Bradford, and uncle of Commander the Hon. Richard O. B. Bridgeman, whose death has already been recorded in our Magazine. Both were members of the Society.

CORRESPONDENCE.

A THIRD BROOD OF SHAMAHS.

DEAR SIR,—You will be interested to learn that the last brood of young Shamahs has been a success, and the five youngsters are strong on the wing and nearly “weaned.”

Eleven for the season, which is rather lucky after nearly losing both the present birds at the start.

* [Certainly a most glowing account. It seems curious that no nest has been found. Is there not a Mocking Bird on the island? Some account of the native birds would be interesting.—ED.]

Sixteen eggs laid, one unfertile, two failed to hatch, two casualties.

The parents were most anxious to nest for the fourth time, but notwithstanding their fine condition, I judged it wiser to remove the cock indoors. There was great lamentation at this, and every time I appeared he commenced singing, and sidled up to me on his perch, asking in the plainest possible way to be allowed to rejoin his wife.

Little food was consumed by either at first, and I was afraid the youngsters might be neglected. However, nothing of the kind happened. In the absence of the nesting-box, the hen collected fragments of hay about the length of a match, and dumped them into odd corners (when she was not pushing them down her children's throats!). The makers of bricks without straw were not in it with her, for she tried to build a house without materials or suitable foundation, being quite assured, poor little thing, that her lord and master, whom she heard singing constantly, would return very shortly.

I think there are two hens and three cocks in the third brood.

14, *Royal Terrace, E. Kingstown,*
August 29th, 1917.

GEO. E. LOW

UVŒAN PARRAKEETS.

In case anyone is able to profit by my sad experience with Uvœan Parrakeets, I may as well give it. Early in the spring I received three in fair order, which did well for some time, being fed on the usual parrakeet diet. During the hot weather in May, they were turned into an outdoor aviary, and a few weeks later died, one after the other, after a few days' sudden and severe illness. *Post-mortem* examinations revealed in every case some enteritis, extreme anæmia, and brittleness of bones. The last bird had no hemp seed for about a week before it fell ill.

I am told that the secret of keeping these birds is fresh air and no hemp. Mine had the fresh air, and I cannot quite see why hemp should cause anæmia. Would Parrish's chemical food have saved them?

Yours, etc.,

TAVISTOCK.

Perhaps Monsieur Delacour can give some information, as I believe he still has a Uvœan Parrakeet in good health. Would mealworms and leather-jackets be eaten? My Queen Alexandra Parrakeets eat them greedily, and they must be very nutritious.

H. D. A.

SIR,—Should not the title of the paper on p. 304 of the September number more correctly read, "St. Helena Waxbill—Cordon Bleu Hybrid," seeing that the Cordon was the female parent?

Dr. Butler, 'Avicultural Magazine,' New Series, iv, p. 350, recorded "Cordon—St. Helena Hybrids" (apparently obtained abroad); but is not Mr. Drelincourt Campbell's the first success this way—"St. Helena × Cordon"?

45, *Sussex Square, Brighton;*

E. HOPKINSON.

September 12th, 1917.

DEAR SIR,—Is there any distinctive marking between the sexes of Red Collared Lorikeets?

I bought a cock and then a pair (supposed to have started nesting, but the box fell before the eggs were laid). The pair seem exactly alike, are smaller and more lightly built, collar orange, not red, and not so much red nor so bright

about the chest and under the wings, and the black of the belly is not so intense—more of a deep green in most lights (the cocks are black, with green or purple shine according to the light).

They have all been together for two days only and not fought, though I think the old cock has a preference for one of the pair, which the other does not seem to resent, as you would expect a cock to. The pair keep together very closely, but the cock is always very near, displays, and sometimes kisses one or perhaps both; I cannot tell which is which.

Would our cock be likely to take on two hens, like budgrigars sometimes will, and is it too late to let them nest, as he evidently wishes to, but there is no box?

You were kind enough to write me interesting letters before, so I am venturing to bother you again.

The Citadel,

Hawkstone, Salop ;

September 11th, 1917.

Yours sincerely,

ALFRED THOM.

The following reply has been sent to Mr. Thom :

SEXES OF RED-COLLARED LORIKEET.

When examining the skins of the parrots in the Natural History Museum about the year 1906, in order to note external sexual differences for my little book, "How to Sex Cage-Birds," I failed to discover any constant colour characters by which to distinguish the sexes; but I noted that the beak of the female was narrower beyond the middle than in the male and tapered more towards the tip.

I have kept very few of the *Pittacidæ* and no Lorikeets, so that I cannot offer any opinion as to their bigamous tendencies; but perhaps our good friend Mr. Seth-Smith could enlighten you. It is rather late for nesting this year.

*The Avicultural Society for the Study
of Foreign and British Birds ;*

September 14th, 1917.

A. G. BUTLER.

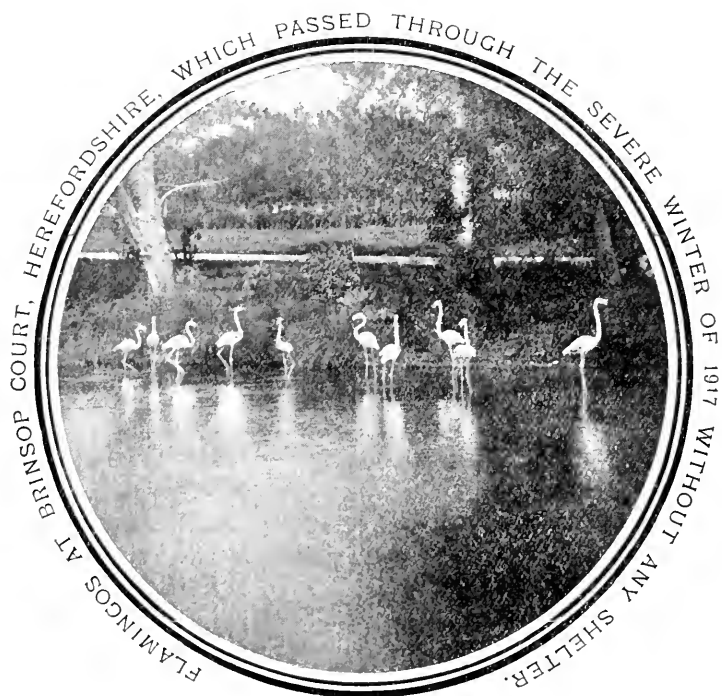
EDITORIAL.

I take my editorial pen for the last time to express my thanks to all the members for their help and courtesy to me during the period that I have acted as Editor—a period of four years and nine months, and I am especially grateful to Dr. Butler for his valuable co-operation.

I regret that I am yielding up my pen to another, not because I think for a moment that Dr. Renshaw will not fill my post far more ably than I have done, but because the members of the Council and of the Avicultural Society have been very kind in expressing their

regrets that I should do so. This regret is very gratifying, but at the same time it leaves me with a feeling that I have not really deserved it and also that my resignation was not justified before men. It had been my wish and intention to at least hold the reins until the black calamity of the great war was overpast, but the fact that peace still seems far away on the horizon gives me little time for the work, since other labours have come into one's daily life, and other duties insistently call. I can but once more express my thanks, with a wish that Dr. Renshaw may be able to steer our ship, as I feel sure he will, with all success, ever lading it with valuable cargoes and bringing it happily into port month by month.

HUBERT D. ASTLEY.



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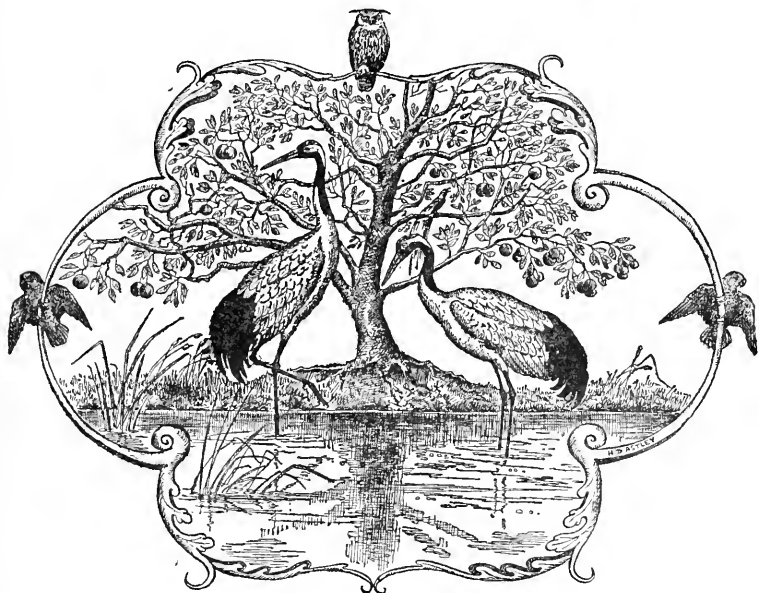
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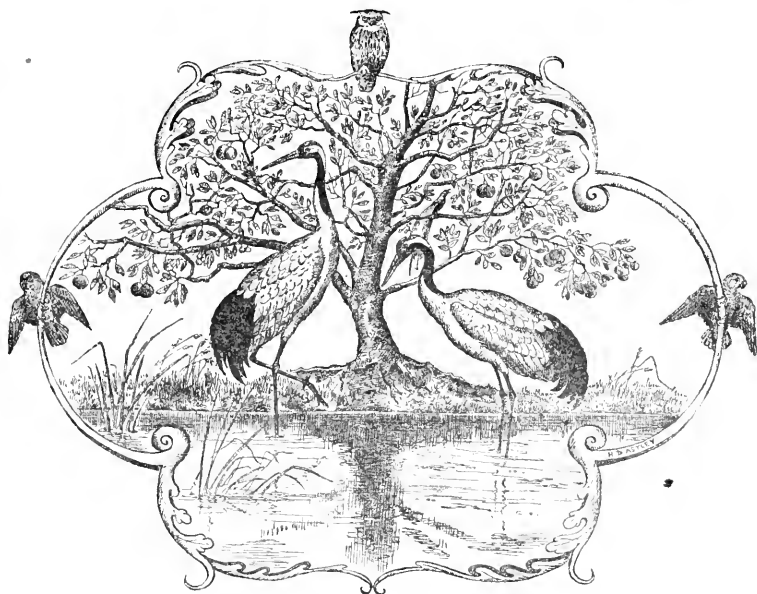
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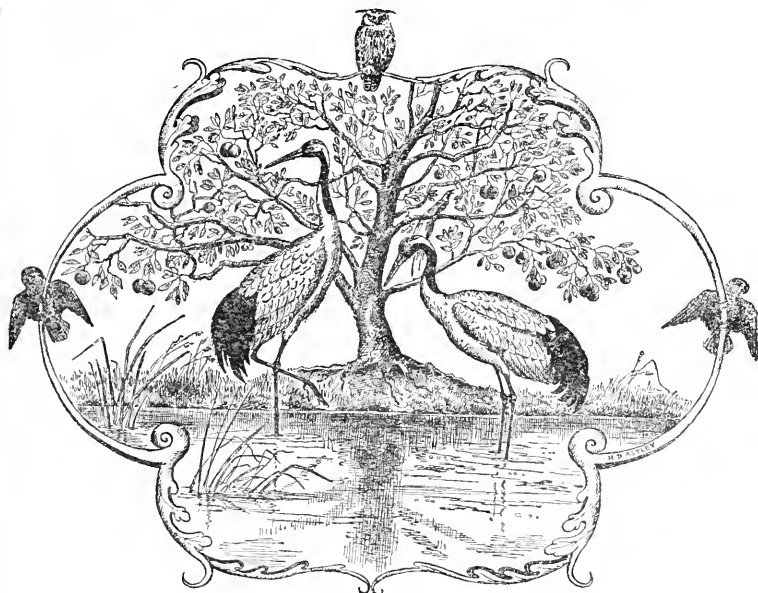
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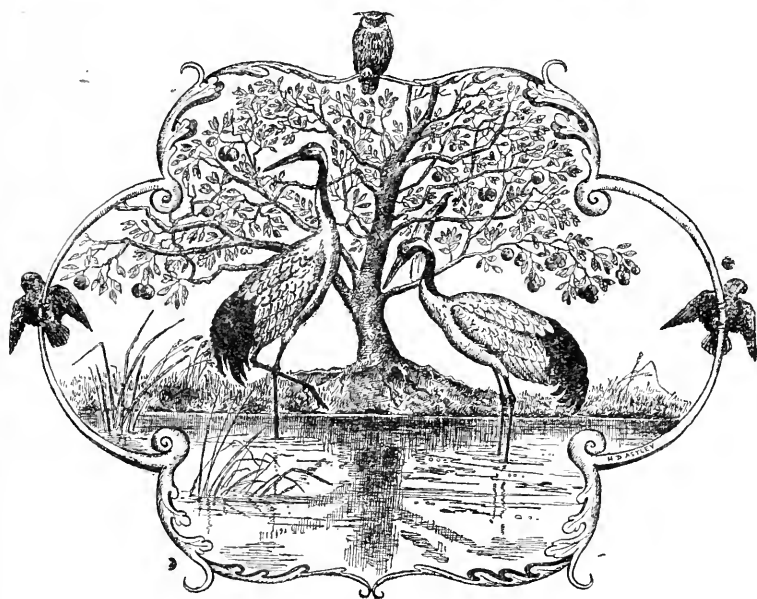
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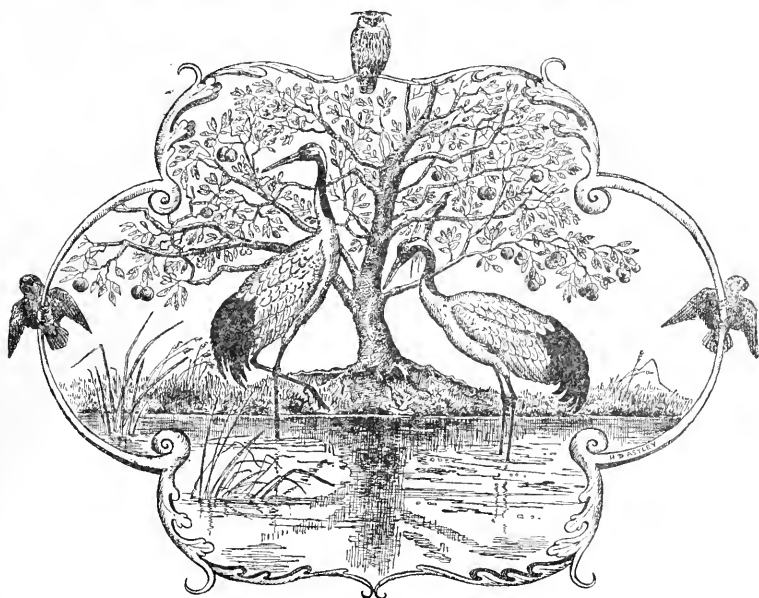
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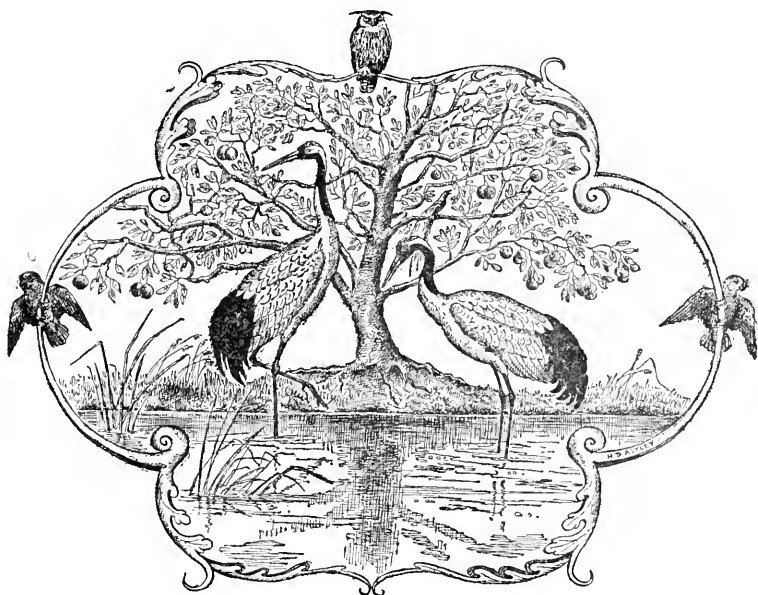
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— 1917. —

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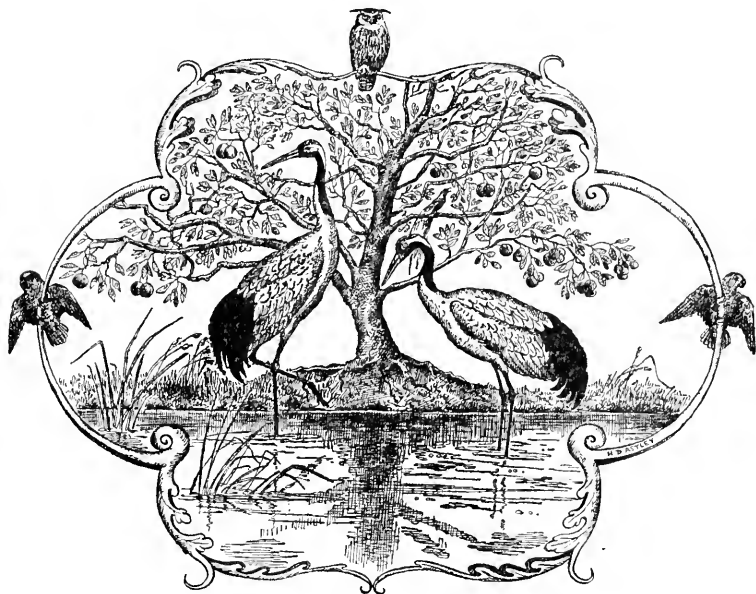
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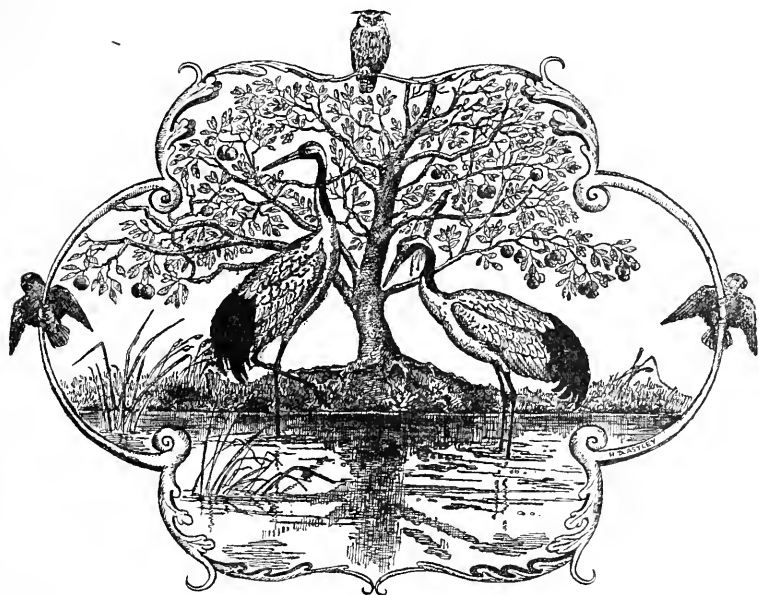
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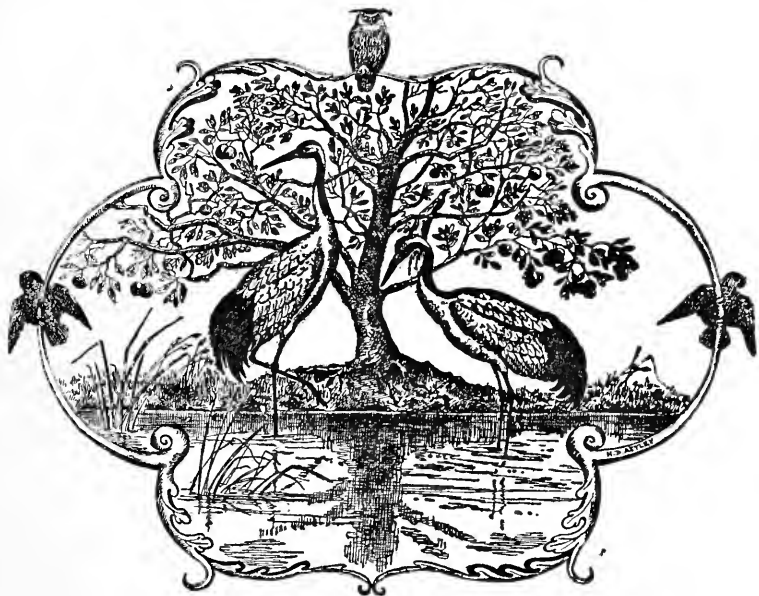
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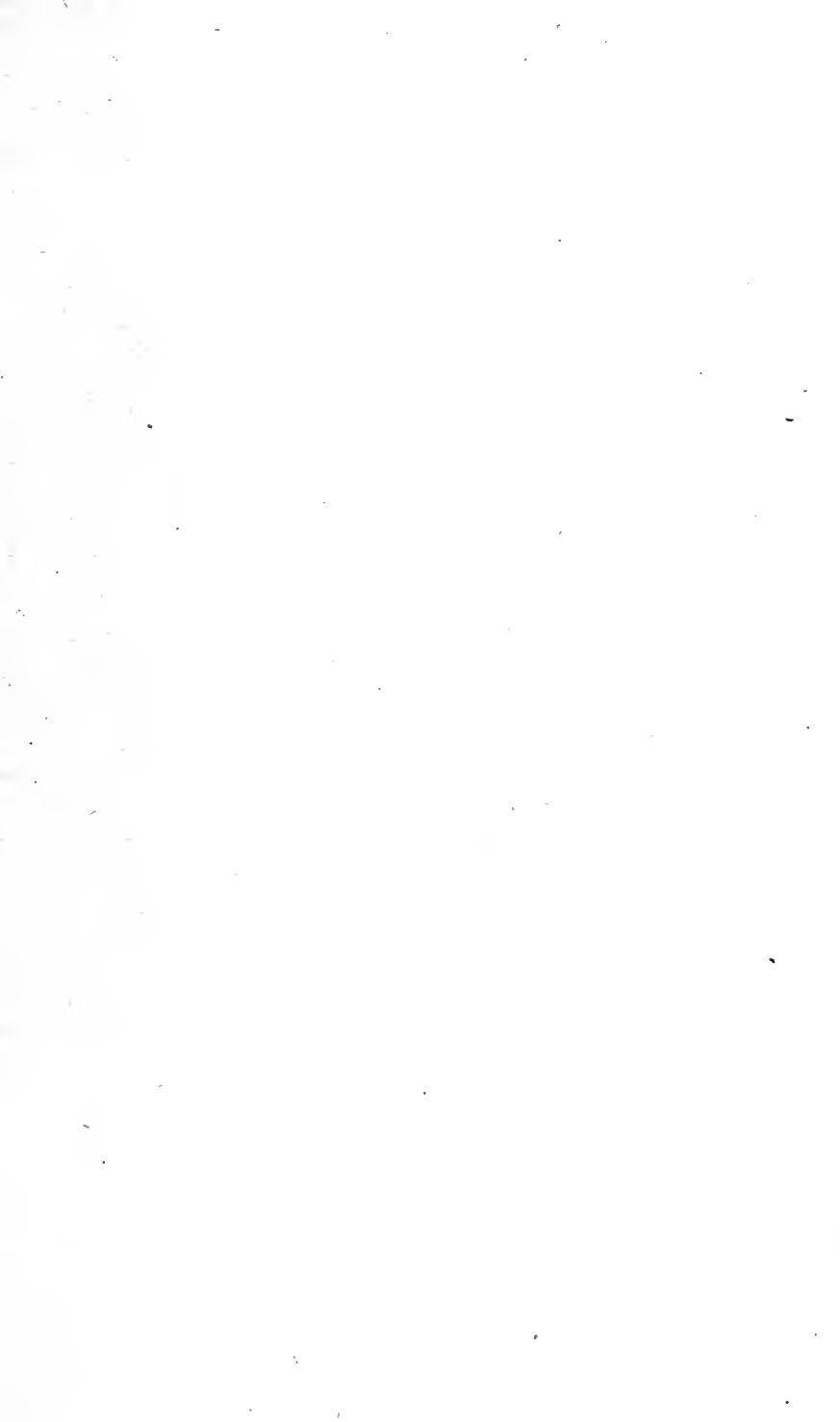
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